Monthly Energy Review

February 1975

Federal Energy
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National Energy
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Contents

Part 1 Overview

Production of energy in the United States during December was 7.2 percent higher than in November. While a seasonal rise in output is expected, the increase far surpassed the 2.8 percent and 0.4 percent gains experienced between these 2 months during 1973 and 1972, respectively. The bulk of the production increase came from coal, up 27.0 percent over December, as production began to return to normal after the strike. However, all other major energy sources also showed increases during the month.

During 1974, total domestic energy production was 1.8 percent lower than during 1973. Dominating the decline was a 4.5-percent drop in crude oil production. Natural gas production was also down substantially in 1974, declining 3.0 percent from last year's level. Moreover, the 5.8-percent increase in coal output during the first 10 months of the year was offset by the 24-day United Mine Workers of America strike, as total production for the year closed 0.2 percent below 1973. The only gains in energy production during the year were posted by nuclear and hydroelectric power, which grew by 29.8 percent and 9.0 percent, respectively. These two energy sources, however, contributed only about 7 percent to total domestic energy output.

Like domestic production, imports of fossil fuels during 1974 were considerably below levels reported for 1973. At 2.0 percent, the decline contrasts with a 24.5-percent increase posted in 1973. Refined product imports registered the largest decrease during the year, down 12.5 percent. Natural gas imports also declined, but by a lesser amount of 7.4 percent. On the other hand, crude oil imports rose 7.9 percent in 1974, demonstrating the increasingly greater share that crude oil imports have contributed to refinery input in order to compensate for declining domestic production.

During the first 11 months of 1974, the United States consumed 1.7 percent less energy than during the comparable period in 1973. Consumption of refined petroleum products, which accounted for 45.5 percent of total domestic energy consumption, showed the largest decrease, down 4.3 percent from the previous year. Consumption of natural gas (constituting 30.2 percent of total consumption) declined 1.8 percent, while coal consumption registered a slight increase of 0.6 percent. (Coal accounted for 18.3 percent of domestic energy consumption.) Substantial increases of 28.4 percent and 10.9 percent, respectively, were posted for nuclear and hydroelectric power consumption (which includes imports of hydroelectric power). The combined contribution of these two energy supplies to total consumption was 6.0 percent.

Inventories of crude oil and all major refined petroleum products at the end of 1974 were considerably higher than at the end of 1973. The following percentage increases were registered: crude oil, 8.4; motor gasoline, 8.6; jet fuel, 8.5; distillate fuel oil, 16.0; and residual fuel oil, 39.1. October 1974 end-of-month stocks of natural gas liquids also compared favorably with levels for the previous year, up 18.6 percent, while coal stocks at the end of November 1974, in spite of the strike, were 1.0 percent above levels held during November 1973.

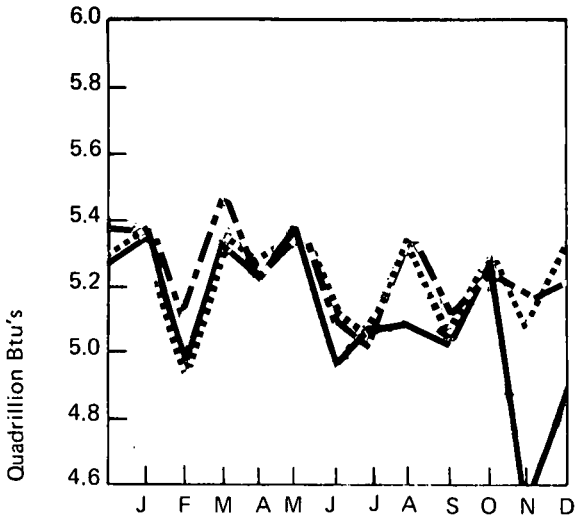
Following a modest decline of 1.5 percent in November, production of electricity by utilities rose 6.3 percent during December. Cumulative electricity production for the year, however, was 0.4 percent below that for 1973. Although there was a slight drawdown of coal and oil stocks at utility plants during November, the utility stocks position still represented a considerable improvement compared with November 1973. Coal inventories have grown 3.8 percent since that time, while oil stocks have increased by a much greater amount of 43.5 percent.

After declining for 4 consecutive months, retail gasoline prices remained relatively unchanged during December. However, the price that retail dealers paid for gasoline advanced slightly during the month, resulting in another decline in the dealer margin. The average dealer margin has now fallen 2.1 cents per gallon (19 percent) from its high during March of 10.8 cents per gallon. November residential heating oil prices posted a substantial increase of 2.3 cents per gallon over the previous month, reaching an average level of 37.9 cents per gallon. A December survey indicated, however, that there was little price change during that month. The average price of new domestic crude oil continued to rise during October and November, with an increase of 64 cents per barrel posted in October and an additional 9-cent advance estimated for November. Perhaps more significant was an estimated 9-cent per barrel rise in the refiner acquisition cost of imported crude petroleum during November, as it was the first increase posted since imported crude prices began declining in July. The estimated refiner acquisition cost of domestic crude petroleum advanced by an even greater amount of 20 cents per barrel during November.

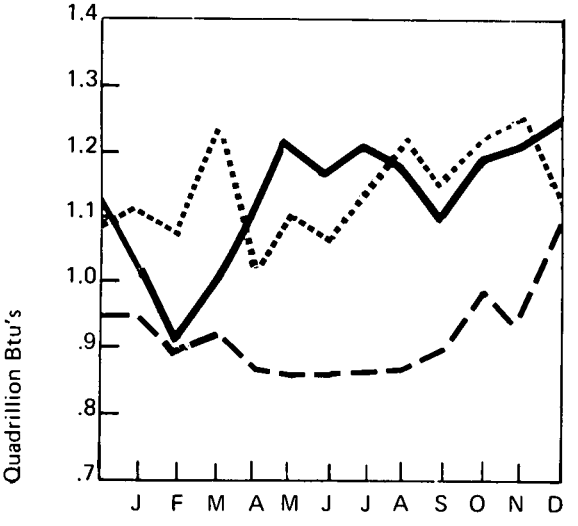
The search for new petroleum reserves proceeded at a near record pace during 1974. The yearly estimate of seismic exploration activity (300 crews per month) was higher than for any period since 1966 and represented a 20-percent increase over the level for 1973. At 1,475, the average number of rotary rigs engaged in drilling for oil and gas was the highest in the past 10 years.

Moreover, there were 31,853 wells completed during 1974, more than in any year since 1969, and 20 percent more than in 1973. However, the average depth of a well decreased 7 percent in 1974, suggesting that drilling efforts were concentrated on shallower reservoirs which are not usually the source of large new reserve additions.

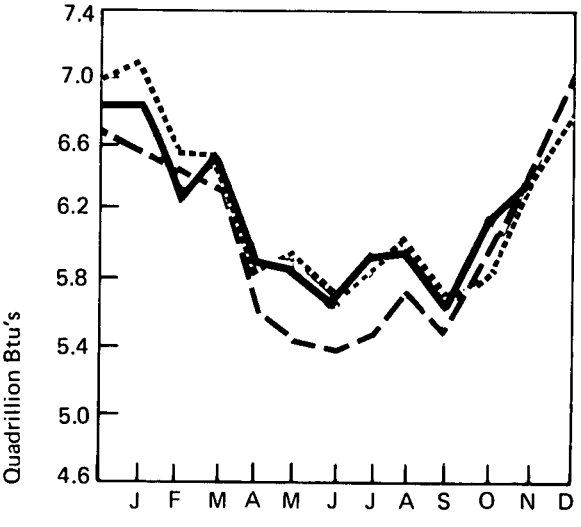
Domestic Production of Energy*



Imports of Fossil Fuels



Domestic Consumption of Energy**



*See Explanatory Note 1.

**See Explanatory Note 2.

— — 1972
····· 1973
——— 1974

Part 2

Energy Sources

Crude Petroleum and Petroleum Products

Crude Oil

Although crude oil production in December was slightly higher than in November, for the second consecutive month it was below 8,500,000 barrels per day. Output during the second half of 1974 averaged only 8,604,000 barrels per day, a 3.7-percent decline, compared with 8,938,000 barrels per day during the first half of the year. The decline for the entire year was even greater. Average daily production in 1974 was 8,771,000 barrels, 4.5 percent less than in 1973. This 416,000 barrel-per-day decline compares with a decline of 254,000 barrels per day in 1973.

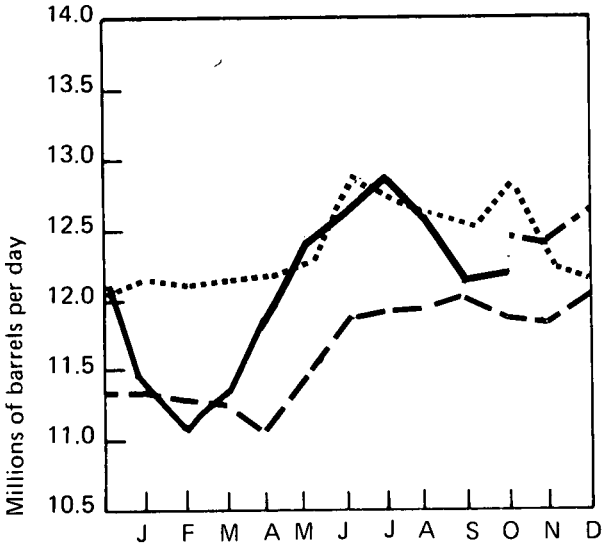
States suffering the greatest production losses for the year were as follows (barrels per day): Louisiana, 200,000; Texas, 80,000; Oklahoma, 40,000; and California, 35,000. States recording the largest gains were: Utah, 25,000; Florida, 10,000; and Michigan, 8,000.

		Crude Input to Refineries		Domestic Production		Imports		Stocks*	
		In thousands of barrels per day						In thousands of barrels	
		BOM	FEA	BOM	FEA	BOM	FEA	BOM	FEA
1972	January	11,388		9,114		2,046		236,776	
	February	11,356		9,336		2,081		238,882	
	March	11,345		9,462		2,067		244,860	
	April	11,184		9,513		2,004		253,492	
	May	11,478		9,614		2,160		265,305	
	June	11,841		9,522		2,085		257,601	
	July	11,885		9,496		2,182		251,913	
	August	11,915		9,483		2,112		244,333	
	September	12,112		9,508		2,364		237,085	
	October	11,871		9,482		2,516		239,949	
	November	11,851		9,426		2,299		237,519	
	December	12,113		9,335		2,667		232,803	
1973	January	12,190		9,179		2,732		224,056	
	February	12,187		9,373		2,873		221,893	
	March	12,201		9,175		3,162		230,696	
	April	12,208		9,233		3,049		235,383	
	May	12,281		9,303		3,215		244,777	
	June	12,862		9,209		3,220		235,846	
	July	12,750		9,195		3,501		230,750	
	August	12,636		9,161		3,593		235,660	
	September	12,560		9,077		3,471		228,280	
	October	12,758		9,172		3,740		233,520	
	November	12,374		9,144		3,452		237,001	
	December	12,150		9,041		2,891		229,504	
1974	January	11,491		8,907		2,382		220,261	
	February	11,102		9,156		2,248		228,004	
	March	11,355		8,950		2,462		231,705	
	April	11,823		8,952		3,267		243,687	
	May	12,333	12,777	8,903		3,908	3,748	256,726	252,270
	June	12,697	12,709	8,777		3,925	3,957	255,762	253,008
	July	12,811	12,905	8,754	8,698	4,091	4,167	255,936	252,399
	August	12,644	12,731	8,682	8,717	3,924	3,852	251,905	R247,040
	September	12,124	12,253	8,621	8,622	3,797	3,758	253,623	R249,476
	October	12,286	12,430	8,568	8,651	3,810	3,936	256,430	255,003
	November		R12,402		R8,458		R3,997		R256,271
	December		**12,674		**8,471		**3,964		**248,668

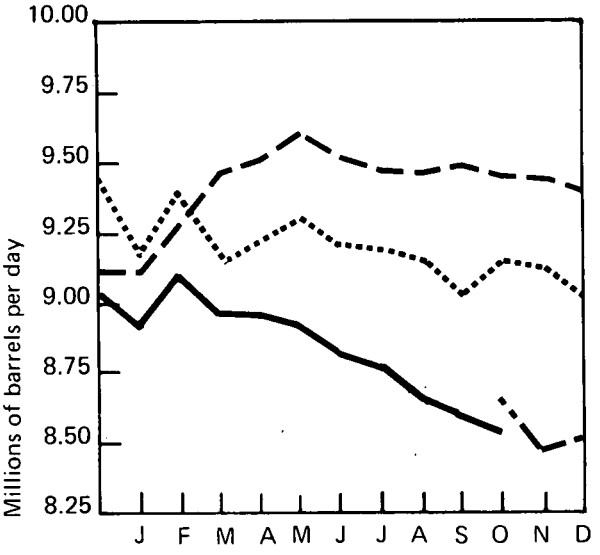
*See definitions.
**Preliminary data.
R=Revised data.
Sources: Bureau of Mines (BOM) and Federal Energy Administration (FEA) as indicated.

Consistent with past seasonal trends, crude input to refineries during December increased 273,000 barrels per day over November. (December 1973 input was abnormally low because of the embargo.) Because imports declined slightly during the month to 3,964,000 barrels per day, the increase in refinery input was met by a stock drawdown of 7,603,000 barrels, or an average of 245,000 barrels per day, which was nearly equal to the increase in crude input. Crude oil imports for the fourth quarter of 1974 were 356,000 barrels per day higher than for the period August through October 1973 (the last 3-month period in 1973 was unaffected by the embargo). The drop in crude oil production between these same periods was 611,000 barrels per day.

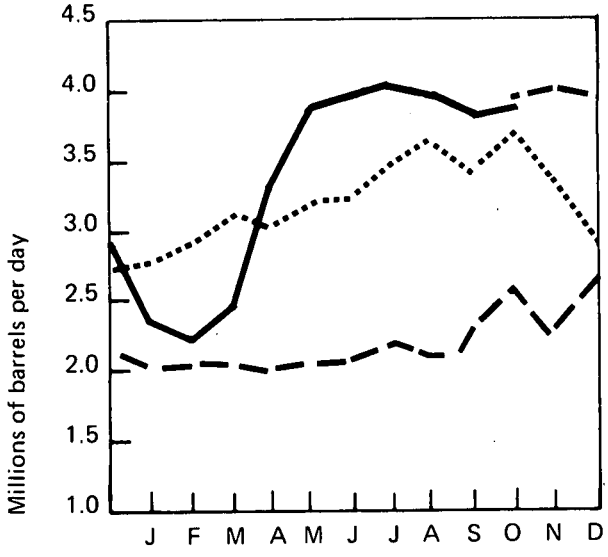
Crude Input to Refineries*



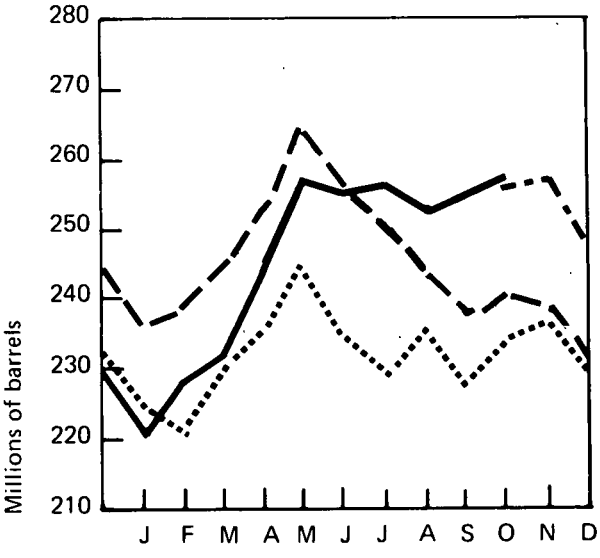
Domestic Production*



Imports*



Stocks*



— — 1972
····· 1973
——— 1974 BOM
·—·—· 1974 FEA

*See Explanatory Note 3.

Total Refined Petroleum Products

Domestic demand for refined petroleum products in December increased seasonally over November, primarily the result of the rise in heating fuel use. December demand amounted to 17,588,000 barrels per day while the average for the entire fourth quarter of 1974 was 17,281,000 barrels per day. This latter average was more than 2,000,000 barrels per day below projections made in late 1973, assuming unconstrained demand and adequate supply. It was also considerably lower than the April 1974 Federal Energy Administration forecast of 18,146,000 barrels per day which assumed normal weather conditions and unembargoed supplies.

Per capita demand for petroleum products during the fourth quarter of 1974 amounted to 3.42 gallons per day, compared with 3.52 gallons per day for the same period in 1973. The decline occurred despite the fact that the fourth quarter of 1974 was colder than last year.

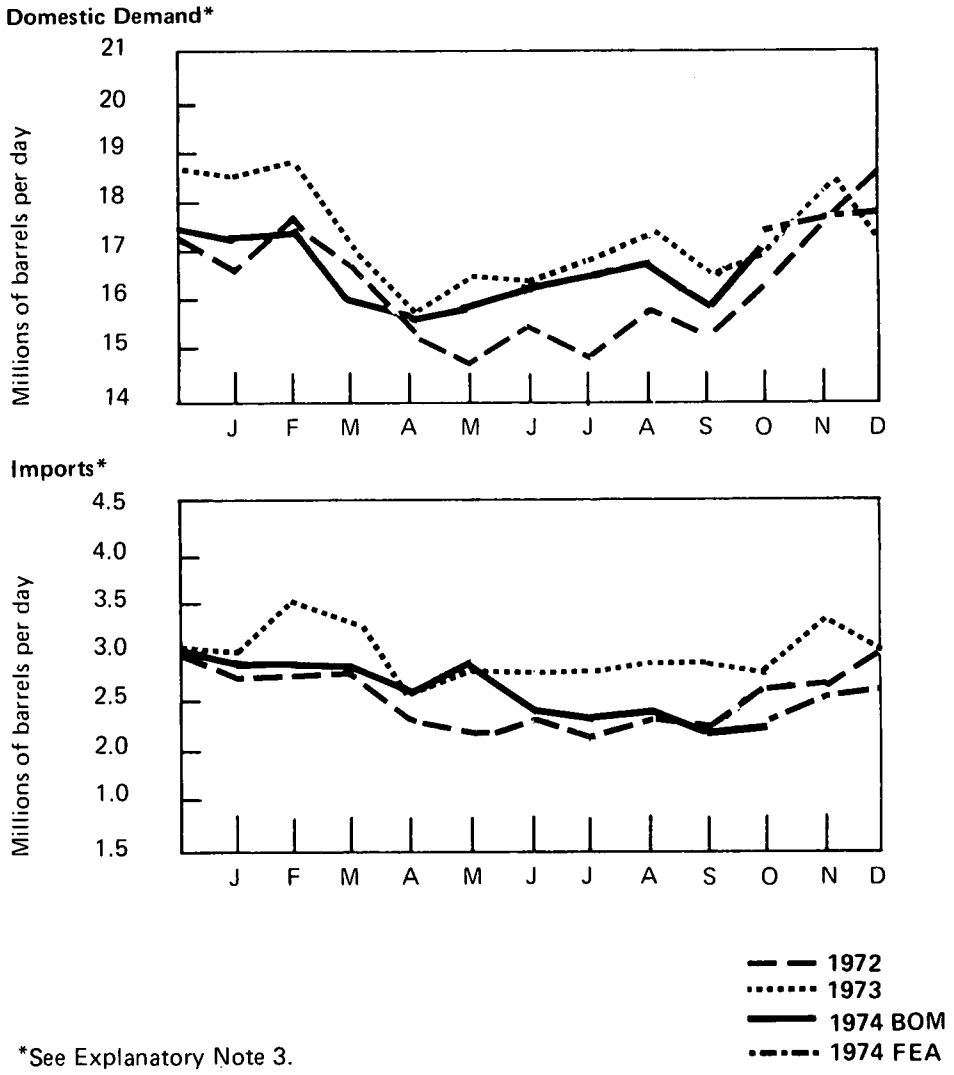
Annual domestic demand averaged 16,595,000 barrels per day in 1974 compared with 17,254,000 barrels per day in 1973, a 3.8-percent decline.

Although refined product imports exhibited a normal seasonal increase in December, demand constraints and

		Domestic Demand		Imports*	
		In thousands of barrels per day			
		BOM	FEA	BOM	FEA
1972	January	16,735		2,721	
	February	17,861		2,764	
	March	16,870		2,730	
	April	15,529		2,298	
	May	14,801		2,208	
	June	15,615		2,382	
	July	14,821		2,215	
	August	15,936		2,344	
	September	15,489		2,342	
	October	16,455		2,607	
	November	17,610		2,653	
	December	18,738		3,039	
1973	January	18,667		3,079	
	February	18,941		3,501	
	March	17,193		3,413	
	April	15,924		2,540	
	May	16,603		2,603	
	June	16,471		2,659	
	July	16,387		2,671	
	August	17,414		2,913	
	September	16,620		2,903	
	October	17,095		2,785	
	November	18,434		3,412	
	December	17,429		3,055	
1974	January	17,270		2,973	
	February	17,371		2,973	
	March	16,045		2,753	
	April	15,919		2,703	
	May	15,720	R15,740	2,580	2,454
	June	16,176	R16,191	2,493	2,218
	July	16,301	R15,853	2,397	R2,140
	August	16,546	R15,803	2,434	2,281
	September	15,994	R16,318	2,225	2,180
	October	17,025	R17,121	2,340	R2,361
	November		R17,129		R2,581
	December		**17,588		**2,623

*See definitions. **Preliminary data. R=Revised data.
Sources: Bureau of Mines (BOM) and Federal Energy Administration (FEA) as indicated.

stock withdrawals held the need for imports down to 2,623,000 barrels per day. This was about 400,000 per day less than product imports during December 1973. This reduction in imports was probably influenced by the rise in import fees to $0.595 per barrel for motor gasoline, and $0.420 for other finished products.



*See Explanatory Note 3.

Motor Gasoline

Domestic demand for motor gasoline for the year 1974 averaged 6,531,000 barrels per day, compared with 6,673,000 barrels per day in 1973 and 6,382,000 barrels per day in 1972. The 1974 figure represents a decline in demand of 2.1 percent from 1973, which is in contrast to the 4.5-percent yearly increase in demand posted in 1973. Demand for December dropped by 114,000 barrels per day, or 1.7 percent, after rising in November by 117,000 barrels per day, or 1.8 percent. For the 3 months previous to November, demand had shown a declining trend.

Refinery production of motor gasoline for 1974 averaged 6,357,000 barrels per day, representing a drop of 170,000 barrels per day or 2.6 percent from the previous year. This production decline is counter to trends exhibited during the last 10 years (1965-74) when motor gasoline production increased at an average annual rate of 3.9 percent. Production during December was 186,000 barrels per day, or 3.0 percent, higher than November; it was the first month since August 1974 that production did not decline.

		Domestic Demand		Production		Imports		Stocks*	
		In thousands of barrels per day						In thousands of barrels	
		BOM	FEA	BOM	FEA	BOM	FEA	BOM	FEA
1972	January	5,549		6,151		51		239,633	
	February	5,710		5,989		66		249,927	
	March	6,412		5,913		67		236,831	
	April	6,283		5,833		52		225,153	
	May	6,445		6,023		74		214,736	
	June	6,822		6,244		75		200,143	
	July	6,673		6,612		69		200,710	
	August	6,938		6,588		81		192,706	
	September	6,453		6,605		70		199,690	
	October	6,350		6,532		71		207,776	
	November	6,479		6,436		69		208,930	
	December	6,378		6,424		69		212,770	
1973	January	6,118		6,341		59		221,823	
	February	6,437		6,141		95		216,367	
	March	6,513		6,150		71		207,581	
	April	6,541		6,377		63		204,708	
	May	6,907		6,714		102		202,081	
	June	6,964		6,993		174		208,374	
	July	7,023		6,986		133		211,488	
	August	7,249		6,880		157		205,122	
	September	6,581		6,620		127		210,278	
	October	6,677		6,621		194		214,525	
	November	6,823		6,375		216		207,343	
	December	6,223		6,099		188		209,395	
1974	January	5,804		5,900		163		217,463	
	February	6,100		5,969		184		219,058	
	March	6,162		5,982		225		220,307	
	April	6,457		6,311		260		223,752	
	May	6,745	6,406	6,328	6,301	250	228	218,670	229,878
	June	6,919	6,895	6,663	6,642	211	145	217,381	226,652
	July	6,959	6,941	6,792	6,835	212	122	218,838	227,195
	August	7,061	6,849	6,815	6,776	253	192	218,951	231,015
	September	6,388	6,652	6,453	6,485	202	140	227,031	230,181
	October	6,712	R6,542	6,336	R6,340	171	175	220,748	R229,275
	November		R6,659		R6,257		R264		R225,226
	December		**6,545		**6,443		**170		**227,363

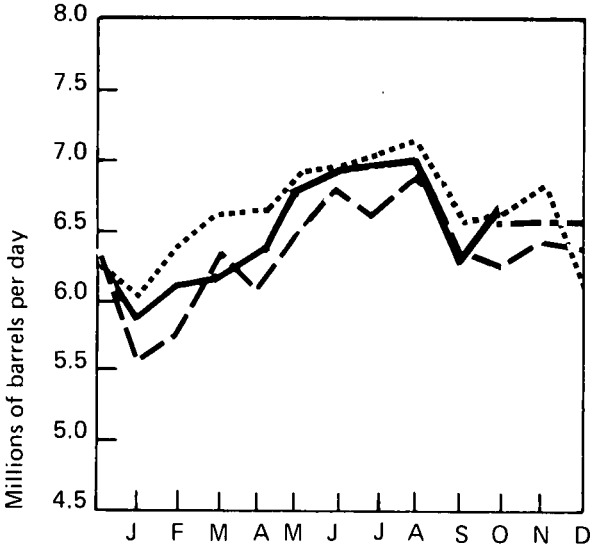
*See definitions. **Preliminary data. R=Revised data.
Sources: Bureau of Mines (BOM) and Federal Energy Administration (FEA) as indicated.

Imports of motor gasoline averaged 214,000 barrels per day in 1974, compared with 132,000 barrels per day in 1973 and 68,000 barrels per day in 1972. The 1974 volume represents an increase of 62.1 percent over 1973, but this was considerably less than the 1973 increase of 94.1 percent over 1972.

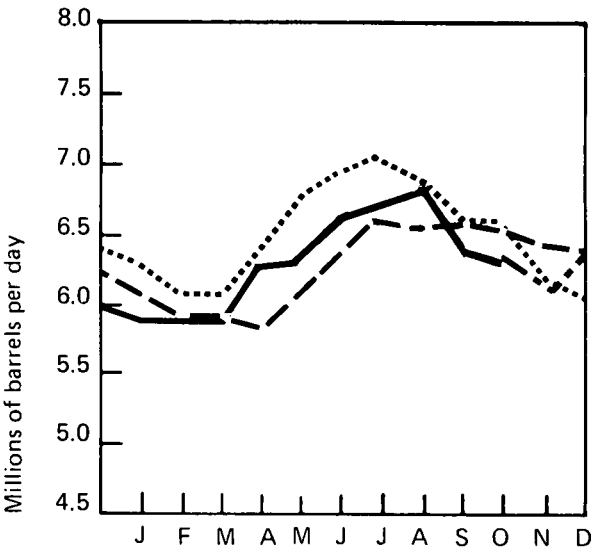
Motor gasoline imports represent a growing share of new supply (defined as motor gasoline production plus imports, excluding stock changes). Imports of motor gasoline accounted for 3.3 percent of new supply in 1974. In 1973 and 1972, they accounted for 2.0 percent and 1.1 percent, respectively.

Stock levels for December closed 0.9 percent higher than November after declining for 4 months. End-of-year stock levels for 1974 were 8.6 percent higher than at the end of 1973.

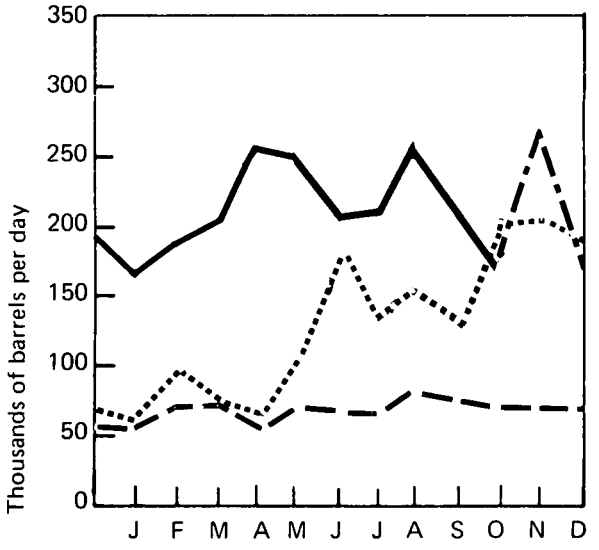
Domestic Demand*



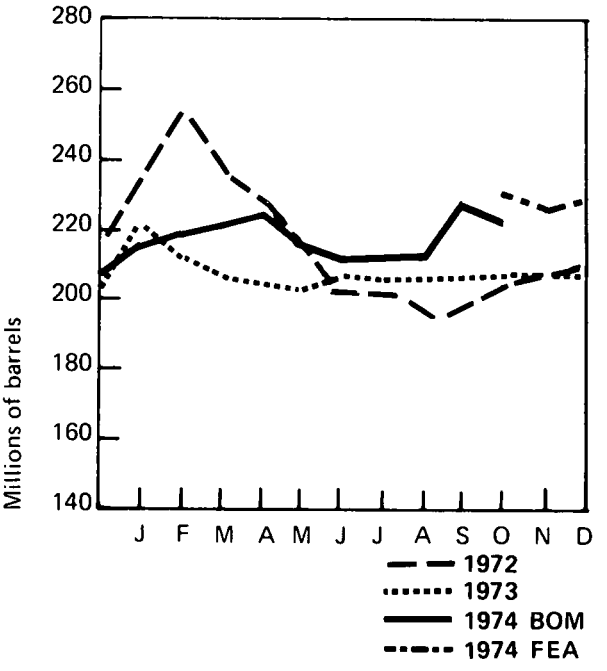
Production*



Imports*



Stocks*



*See Explanatory Note 3.

Jet Fuel

December domestic demand for total jet fuels increased 80,000 barrels per day (7.6 percent) over the previous month and was also 97,000 barrels per day (9.3 percent) higher than December of the previous year. For the year 1974, average daily demand amounted to 1,011,000 barrels. For the last 10 years (1965-74), demand has averaged 760,000 barrels per day. Of this, naphtha-type jet fuel accounted for 269,000 barrels per day or 35.4 percent of total, while kerosine-type jet fuel accounted for 491,000 barrels per day (64.6 percent of total). Demand for naphtha-type jet fuel (used mainly for military purposes) reached a peak in 1968 during the Vietnam war, and has shown a generally declining trend ever since. Demand for kerosine-type jet fuel (primarily for commercial use) increased continuously throughout the 10-year interval.

Production of total jet fuels in December was 45,000 barrels per day (5.2 percent) higher than in November, and was also 76,000 barrels per day (9.2 percent) higher than December 1973. For the 10-year period, 1965-1974, total jet fuel production averaged 412,000 barrels per day. Average daily production in 1974 was 842,000 barrels, representing a decrease of 17,000

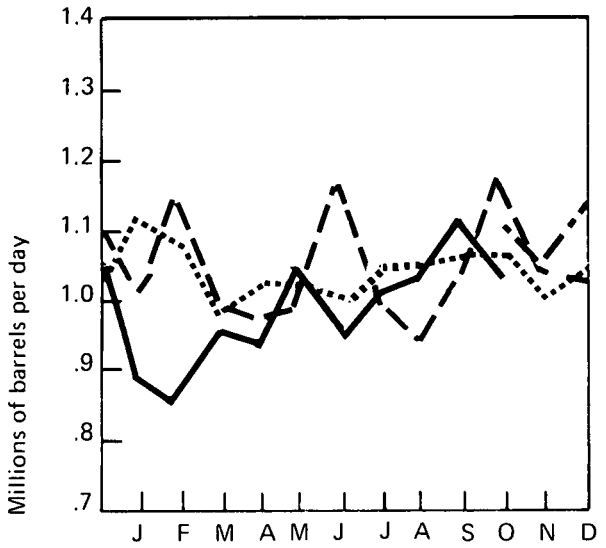
		Domestic Demand		Production		Imports		Stocks	
		In thousands of barrels per day						In thousands of barrels	
		BOM	FEA	BOM	FEA	BOM	FEA	BOM	FEA
1972	January	1,021		784		179		25,857	
	February	1,141		900		220		25,230	
	March	1,008		906		167		27,147	
	April	986		877		124		27,568	
	May	999		887		159		28,885	
	June	1,163		859		292		28,356	
	July	1,000		873		165		29,429	
	August	946		837		181		31,649	
	September	1,035		810		190		30,597	
	October	1,171		822		286		28,633	
	November	1,050		800		184		26,650	
	December	1,030		811		189		25,493	
1973	January	1,110		864		231		24,814	
	February	1,090		898		221		25,437	
	March	993		917		152		27,585	
	April	1,015		887		145		27,881	
	May	1,113		840		211		25,825	
	June	1,007		836		163		25,447	
	July	1,045		825		231		25,661	
	August	1,049		844		180		24,851	
	September	1,065		847		229		25,149	
	October	1,066		875		208		25,577	
	November	1,013		852		263		28,539	
	December	1,038		830		210		28,544	
1974	January	895		800		136		29,732	
	February	860		783		75		29,617	
	March	956		832		139		29,996	
	April	941		868		132		31,725	
	May	1,053	915	868	873	205	97	32,324	33,574
	June	952	1,016	810	886	141	115	32,200	33,128
	July	1,028	1,032	802	813	214	188	31,671	32,231
	August	1,031	1,076	805	849	206	202	30,989	31,594
	September	1,109	1,100	867	883	217	183	30,186	30,587
	October	1,011	1,092	868	905	161	216	30,564	31,488
	November		R1,055		861		222		R31,303
	December		*1,135		*906		*219		*30,978

*Preliminary data. R=Revised data.
Sources: Bureau of Mines (BOM) and Federal Energy Administration (FEA) as indicated.

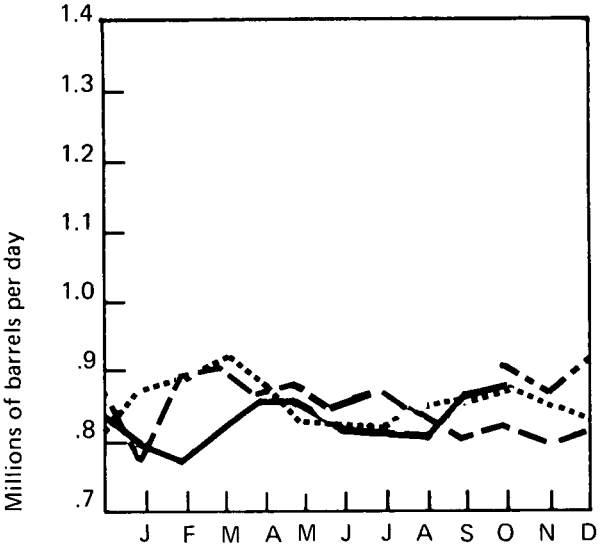
barrels per day or 2.0 percent from 1973 and the first annual decline since 1970.

Monthly imports of jet fuels fluctuate considerably, so it is more meaningful to compare yearly import figures. Average daily imports of total jet fuels amounted to 178,000 barrels in 1974. Of this, naphtha jet fuel accounted for 32,000 barrels per day or 18.0 percent. For the 10-year period, 1965-1974, imports of naphtha and kerosine jet fuel averaged 21,000 and 80,000 barrels per day, respectively. Imports of naphtha jet showed a generally declining trend from 1965 to 1969, and thereafter generally increased, while kerosine jet imports increased continuously over the 10-year period.

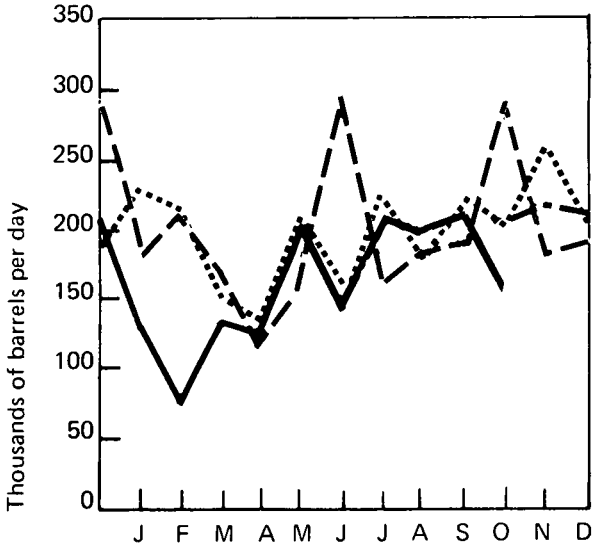
Domestic Demand*



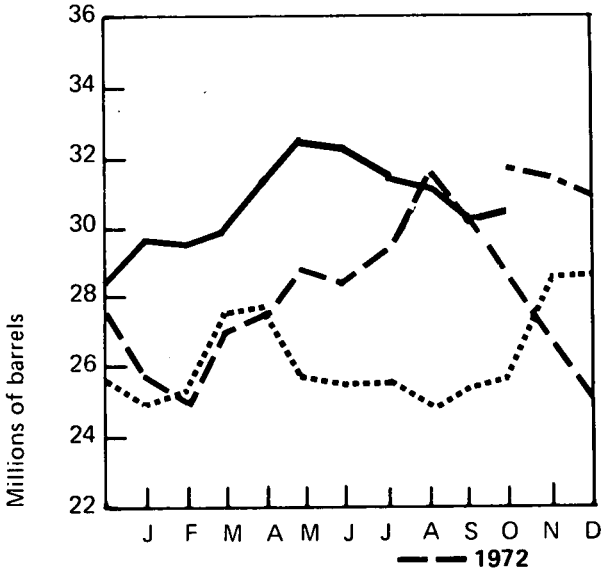
Production*



Imports*



Stocks*



*See Explanatory Note 3.

Distillate Fuel Oil

Domestic demand for distillate fuel oil in December rose 28.2 percent over the level for the previous month to 3,920,000 barrels per day. Demand was also 6.4 percent higher than for December 1973 but was 7.4 percent below that for December 1972. Average daily demand for the year 1974 was 2,933,000 barrels, which was 147,000 barrels per day, or 4.8 percent, below 1973, but 20,000 barrels per day, or 0.7 percent, above 1972.

December imports of distillate fuel oil were up 15.6 percent from November, the highest monthly level since November 1973 when the Arab oil embargo first began to have an impact on U.S. imports. The December figure was 7.4 percent greater than that for December 1973.

Preliminary data indicate that imports of distillate fuel oil for 1974 were 278,000 barrels per day, which was 102,000 barrels per day below the level for 1973 but 97,000 barrels per day above 1972.

Production of distillate fuel oil in December at 3,024,000 barrels per day increased 141,000 barrels per day, or 4.9 percent, over the previous month. This compared with a 7.3-percent increase for these 2 months

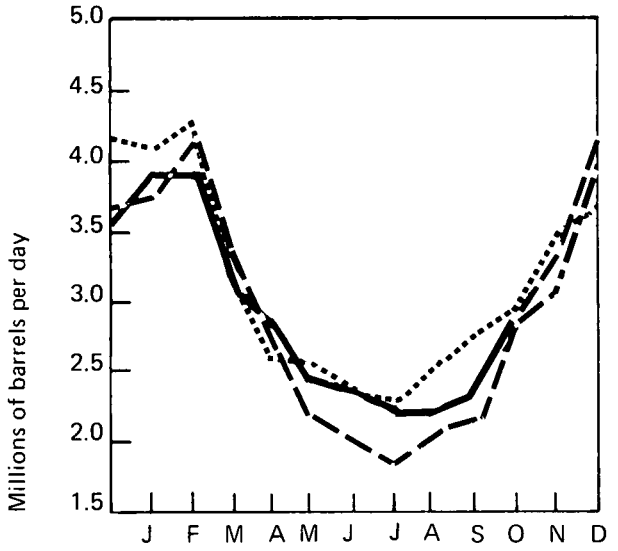
	Domestic Demand		Production*		Imports		Stocks*	
	In thousands of barrels per day						In thousands of barrels	
	BOM	FEA	BOM	FEA	BOM	FEA	BOM	FEA
1972 January	3,723		2,538		197		160,027	
February	4,164		2,653		204		122,154	
March	3,482		2,564		257		101,728	
April	2,778		2,476		189		98,288	
May	2,250		2,585		132		112,892	
June	2,194		2,623		96		128,739	
July	1,765		2,529		97		155,557	
August	2,064		2,582		92		174,674	
September	2,205		2,624		99		190,250	
October	2,759		2,722		203		195,530	
November	3,383		2,719		227		182,581	
December	4,232		2,938		382		154,284	
1973 January	4,134		3,028		360		130,958	
February	4,243		2,937		672		113,276	
March	3,314		2,667		579		111,270	
April	2,635		2,510		240		114,698	
May	2,652		2,544		247		119,104	
June	2,412		2,825		215		137,844	
July	2,329		2,752		319		160,869	
August	2,554		2,801		286		177,271	
September	2,660		2,813		298		190,171	
October	2,916		2,911		436		202,965	
November	3,508		2,922		493		200,182	
December	3,685		3,136		434		196,421	
1974 January	3,820		2,880		449		181,179	
February	3,835		2,399		293		149,125	
March	3,145		2,226		267		128,822	
April	2,848		2,522		216		125,553	
May	2,453	2,616	2,704	2,741	271	288	141,806	151,345
June	2,386	2,249	2,783	2,818	228	175	160,645	173,639
July	2,302	2,251	2,792	2,881	214	168	182,458	198,374
August	2,295	2,271	2,704	2,779	111	112	198,673	217,632
September	2,377	2,473	2,551	2,655	144	143	208,269	227,069
October	2,863	2,816	2,770	2,787	213	264	209,908	R234,257
November		R3,058		2,883		R403		R241,125
December		**3,920		**3,024		**466		**227,900

*See definitions. **Preliminary data. R=Revised data.
Sources: Bureau of Mines (BOM) and Federal Energy Administration (FEA) as indicated.

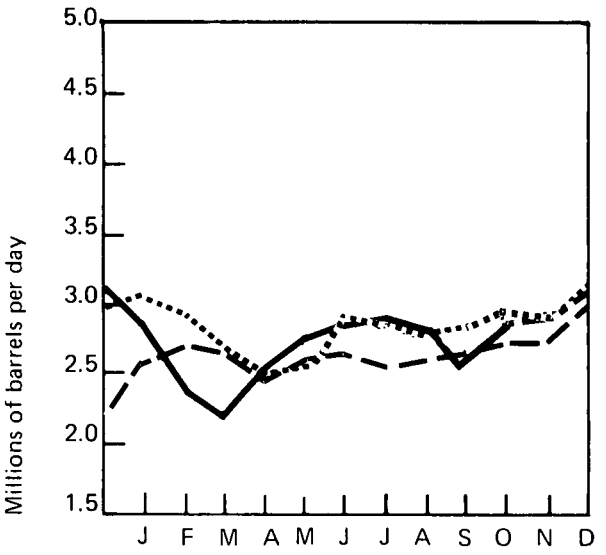
during 1973. Preliminary average daily production data for the year 1974, at 2,690,000 barrels per day, was 130,000 barrels per day, or 4.6 percent, below 1973, but 61,000 barrels per day, or 2.3 percent, greater than 1972.

Inventories of distillate fuel oil in December declined 13.2 million barrels, or 5.5 percent, from their levels during November. This stock drawdown compared with stock depletions of 1.9 percent and 15.5 percent for the corresponding months in 1973 and 1972, respectively.

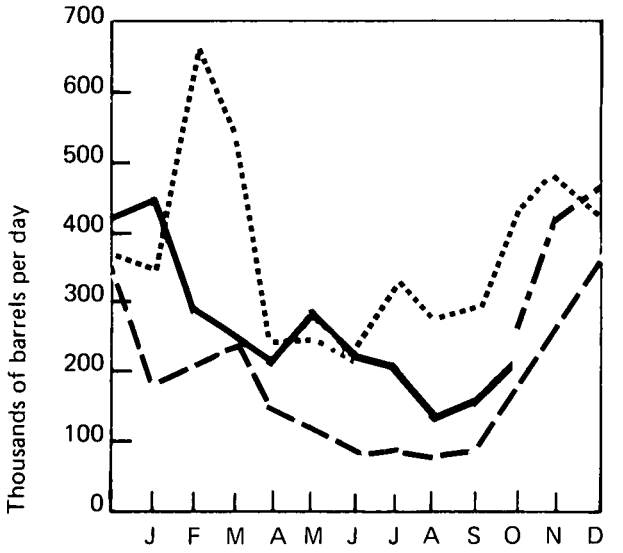
Domestic Demand*



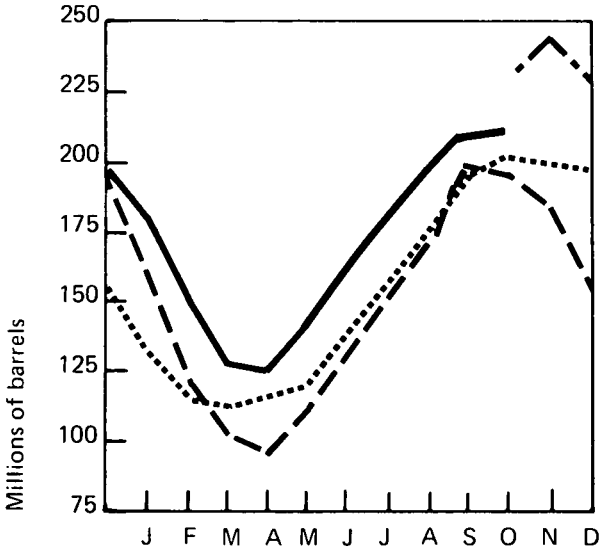
Production*



Imports*



Stocks*



— — 1972
····· 1973
——— 1974 BOM
·—·— 1974 FEA

*See Explanatory Note 3.

Oil Heating Degree-days

In December 1974, most areas of the country experienced above normal temperatures and thus had fewer oil heating degree-days than normal. For the continental United States, total oil heating degree-days were almost 10 percent below the normal for the month and were 1.6 percent lower than the previous December. The New England States and the western third of the Nation were colder than last December, while the rest of the Nation was generally warmer.

Since July 1, 1974, total oil heating degree-days for the Nation have been very close to normal. This contrasts with the previous year's cumulative figure which was almost 11 percent below normal. The western third of the Nation and the Middle Atlantic States have been warmer than usual, while the rest of the country has been slightly colder. (See Explanatory Note 4 for explanation of oil heating degree-days.)

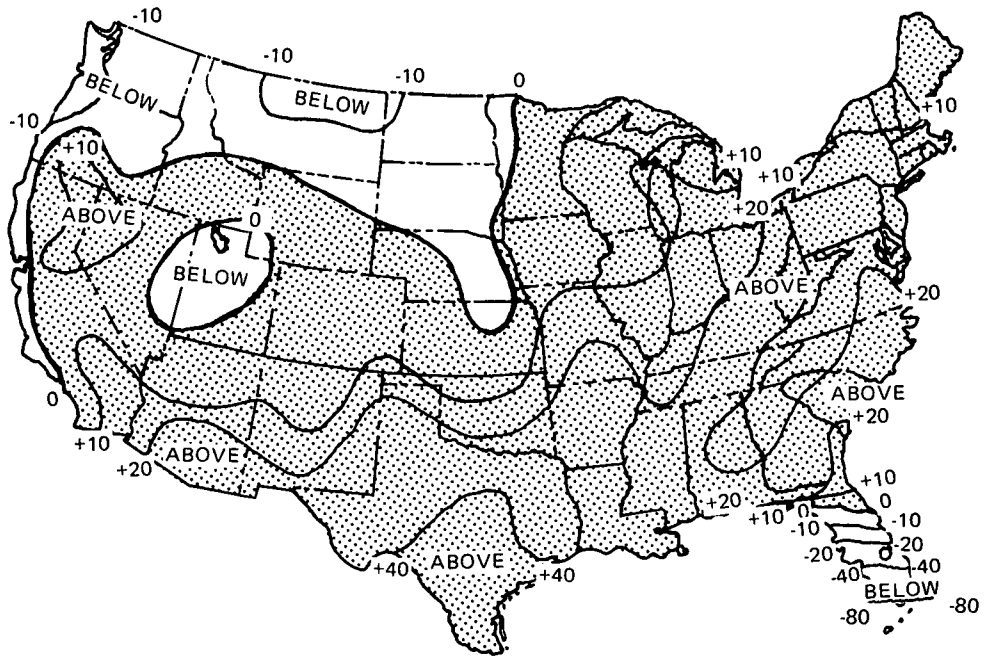
OIL HEATING DEGREE-DAYS* – DECEMBER 1974

Petroleum Administration for Defense (PAD) Districts	December			Cumulative Since July 1, 1974		
	Current	1973**	Normal (1941-1970)**	Current	1973**	Normal (1941-1970)**
PAD District I	691.2	692.8 (-0.2)	784.5 (-11.9)	1,659.1	1,480.8 (12.0)	1,651.7 (0.4)
New England Conn., Maine, Mass., N.H., R.I., Vt.	838.7	785.9 (6.7)	962.7 (-12.9)	2,169.4	1,905.0 (13.9)	2,120.7 (2.3)
Middle Atlantic Del., Md., N.J., N.Y., Pa.	773.2	783.2 (-1.3)	884.7 (-12.6)	1,847.6	1,672.9 (10.4)	1,861.7 (-0.8)
Lower Atlantic Fla., Ga., N.C., S.C., Va., W. Va.	389.0	422.3 (-7.9)	416.7 (-6.7)	808.4	700.7 (15.4)	794.1 (1.8)
PAD District II Ill., Ind., Iowa, Kans., Ky., Mich., Minn., Mo., Nebr., N. Dak., Ohio, Okla., S. Dak., Tenn., Wis.	973.0	1,033.7 (-5.9)	1,038.5 (-6.3)	2,359.3	2,131.3 (10.7)	2,326.1 (1.4)
PAD District III Ala., Ark., La., Miss., N. Mex., Tex.	456.4	460.5 (-0.9)	454.3 (0.5)	860.7	698.7 (23.2)	839.4 (2.5)
PAD District IV Colo., Idaho, Mont., Utah, Wyo.	941.6	887.1 (6.1)	991.2 (-5.0)	2,323.4	2,332.5 (-0.4)	2,480.5 (-6.3)
PAD District V Ariz., Calif., Nev., Oreg., Wash.	560.8	511.6 (9.6)	616.1 (-9.0)	1,443.7	1,520.3 (-4.7)	1,654.2 (-12.4)
U.S. Total	742.1	754.1 (-1.6)	823.3 (-9.9)	1,783.0	1,607.5 (10.9)	1,780.7 (0.1)

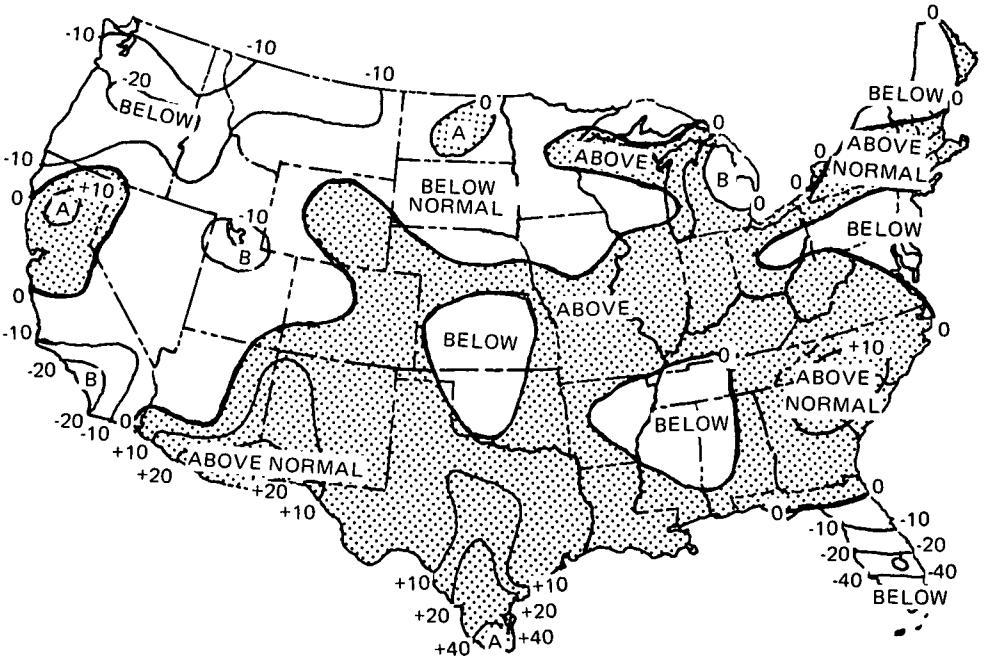
*See Explanatory Note 4 for explanation of oil heating degree-days.
**Percentage change in parenthesis.

HEATING DEGREE-DAYS ACCUMULATED FROM JULY 1, 1974
DECEMBER 29, 1974

PERCENT DEPARTURE FROM 1973



PERCENT DEPARTURE FROM NORMAL (1941-70)



NOTE: Above normal heating degree-days correspond to below normal temperatures.
Source: Department of Commerce – NOAA.
Based on preliminary telegraphic reports.

Residual Fuel Oil

December domestic demand for residual fuel oil was 254,000 barrels per day (9.7 percent) higher than in November. The seasonal increase was comparable to the 10.8 percent demand increase for the same months in 1972. Demand for residual in December 1973 was unusually low because of the embargo and so was 6.7 percent less than in November. Average daily demand for the year, at 2,592,000 barrels, was 204,000 barrels per day below demand for 1973 but 63,000 barrels per day above 1972. The 1974 drop reflected both depressed industrial activity and decreased residual usage by electric utilities.

Production of residual fuel oil in December rose 9.8 percent (120,000 barrels per day) above the level for November, and was 16.2 percent and 19.8 percent higher than the same month in 1973 and 1972, respectively. Similarly, the preliminary estimate of production for the year 1974, at 1,072,000 barrels per day, was 10.4 percent and 34.2 percent higher than in 1973 and 1972, respectively.

Imports of residual fuel oil in December were up 7.4 percent from the previous month to 1,561,000 barrels

	Domestic Demand		Production		Imports		Stocks	
	In thousands of barrels per day						In thousands of barrels	
	BOM	FEA	BOM	FEA	BOM	FEA	BOM	FEA
1972 January	2,815		924		1,892		59,440	
February	3,171		963		1,923		50,891	
March	2,682		828		1,926		51,566	
April	2,444		739		1,676		49,425	
May	2,111		664		1,573		53,035	
June	2,196		661		1,649		56,109	
July	2,107		673		1,594		60,230	
August	2,257		674		1,653		61,399	
September	2,239		710		1,625		63,692	
October	2,362		745		1,655		63,758	
November	2,843		890		1,769		57,702	
December	3,151		1,124		1,968		55,216	
1973 January	3,262		1,112		1,977		49,154	
February	3,305		1,038		2,072		43,058	
March	3,071		955		2,185		44,711	
April	2,472		877		1,703		47,044	
May	2,518		948		1,666		49,207	
June	2,602		915		1,757		51,811	
July	2,430		882		1,597		53,363	
August	2,690		851		1,850		53,586	
September	2,667		878		1,842		55,091	
October	2,547		984		1,556		54,964	
November	3,118		1,061		1,942		51,985	
December	2,910		1,158		1,793		53,480	
1974 January	3,035		1,072		1,732		46,548	
February	3,010		1,029		1,923		45,004	
March	2,516		912		1,674		47,222	
April	2,432		984		1,587		51,339	
May	2,251	2,111	995	992	1,353	1,250	54,356	64,548
June	2,455	2,177	1,026	1,058	1,549	1,260	57,891	68,646
July	2,432	2,135	1,056	1,091	1,433	1,197	59,787	73,066
August	2,539	2,368	1,067	1,126	1,530	1,342	60,988	76,011
September	2,454	2,419	1,032	1,070	1,400	1,274	60,251	72,723
October	2,610	2,501	1,099	1,112	1,464	1,369	58,679	R72,090
November		R2,631		R1,226		1,453		R73,581
December		*2,885		*1,346		*1,561		*74,369

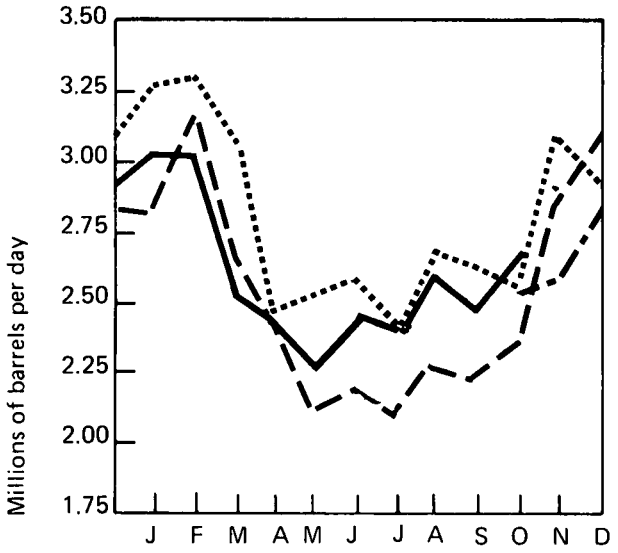
*Preliminary data. R = Revised data.
Sources: Bureau of Mines (BOM) and Federal Energy Administration (FEA) as indicated.

per day, but were 12.9 percent and 20.7 percent below the levels for December 1973 and 1972, respectively.

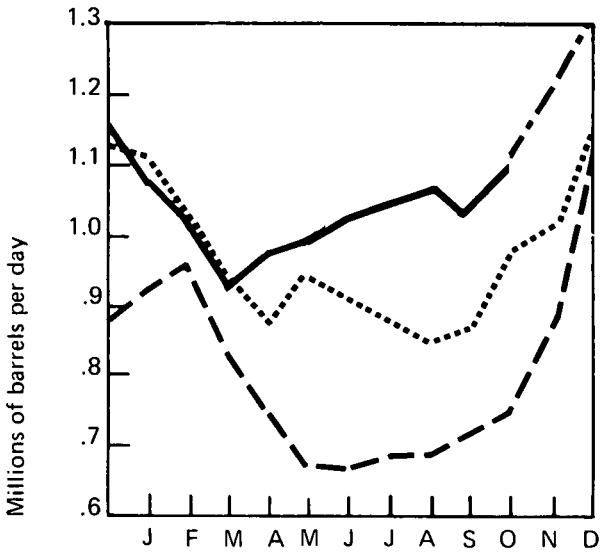
Average imports for the year 1974, at 1,544,000 barrels per day, were also considerably lower than average imports during 1973 and 1972 (15.5 percent and 11.3 percent, respectively). The decline is attributed to increased production coupled with a decrease in demand, making it unnecessary to import residual at rates comparable to the previous 2 years.

Inventories of residual fuel oil in December closed 1.1 percent higher than the previous month, counter to a normally expected seasonal drawdown in stocks. In 1972 stocks decreased 4.3 percent in December. In 1973, however, there was an abnormal 2.9 percent increase in stocks.

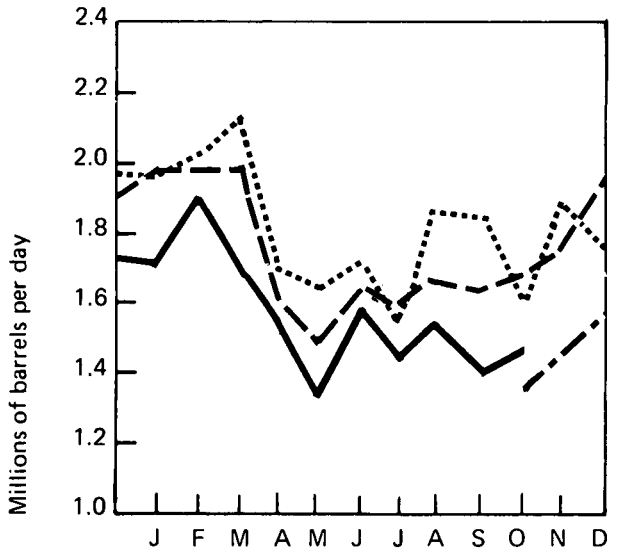
Domestic Demand*



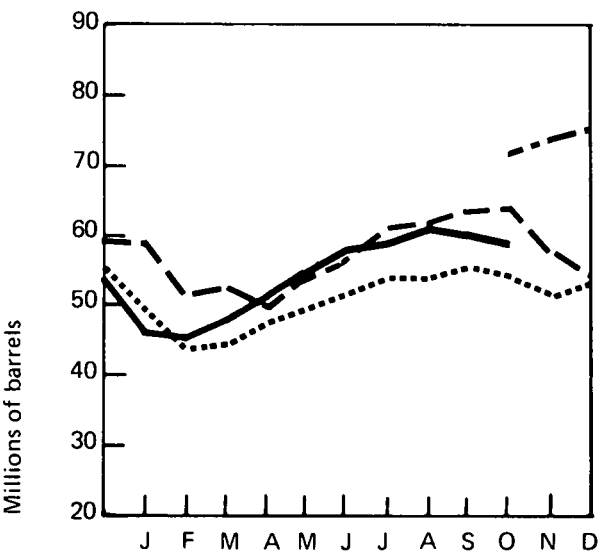
Production*

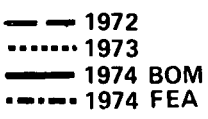


Imports*



Stocks*





*See Explanatory Note 3.

Natural Gas Liquids

Domestic demand for natural gas liquids rose 9.9 percent during the month of October 1974, reaching 1,493,000 barrels per day. (Demand, production, and imports tend to be seasonably higher in October than in September.) October demand was also greater than in October 1973, but only by 0.5 percent. Demand for the first 10 months of 1974, however, was down 2.3 percent from the comparable period in 1973.

Although October production of 1,686,000 barrels per day was 2.9 percent higher than in September, it was 4.0 percent lower than October 1973, following the pattern established during the earlier months of the year. Production during the first 10 months of 1974 averaged 1,690,000 barrels per day, or 2.6 percent less than the comparable 1973 average of 1,735,000 barrels per day.

With the arrival of the heating season and the concomitant rise in demand, natural gas liquids stocks declined 2.2 percent during October to 123,634,000 barrels. However, stocks were considerably (18.6 percent) higher than they were a year ago. This increase was consistent with the pattern established during the year of rising stocks and falling production. Compared to

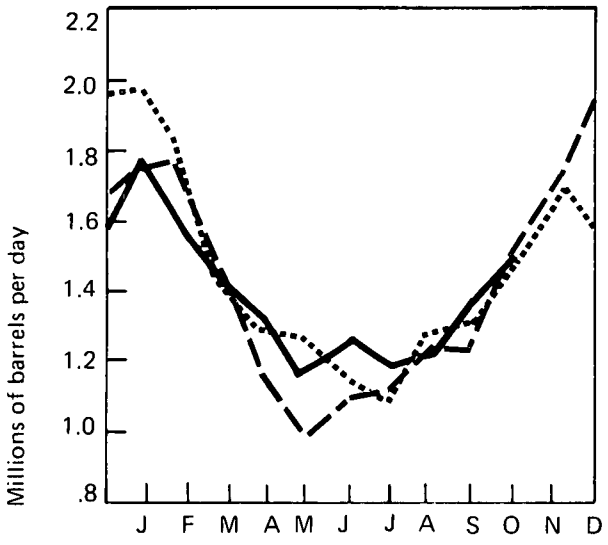
		Domestic Demand*	Production*	Imports	Stocks*
		In thousands of barrels per day			In thousands of barrels
1972	January	1,746	1,705	196	76,704
	February	1,752	1,747	182	68,232
	March	1,417	1,768	186	68,777
	April	1,181	1,769	118	75,101
	May	995	1,737	147	84,984
	June	1,114	1,734	134	92,831
	July	1,121	1,731	141	100,363
	August	1,243	1,739	164	104,397
	September	1,244	1,751	168	108,853
	October	1,525	1,769	202	105,098
	November	1,768	1,757	221	94,673
	December	1,946	1,721	231	79,238
1973	January	1,994	1,680	313	64,343
	February	1,857	1,745	312	55,997
	March	1,406	1,734	258	58,471
	April	1,297	1,749	199	65,297
	May	1,268	1,739	215	73,942
	June	1,149	1,727	163	83,057
	July	1,104	1,737	193	93,362
	August	1,268	1,748	226	98,996
	September	1,288	1,741	197	103,907
	October	1,485	1,756	235	104,215
	November	1,693	1,774	276	98,320
	December	1,598	1,729	223	94,106
1974	January	1,779	1,699	305	85,820
	February	1,593	1,728	294	84,734
	March	1,408	1,741	224	89,362
	April	1,321	1,696	215	95,707
	May	1,181	1,689	182	104,739
	June	1,242	1,684	200	111,356
	July	1,187	1,657	163	118,804
	August	1,221	1,676	163	125,120
	September	1,359	1,638	167	126,454
	October	**1,493	**1,686	**200	**123,634

*See Explanatory Note 5.
**Preliminary data.
Source: Bureau of Mines.

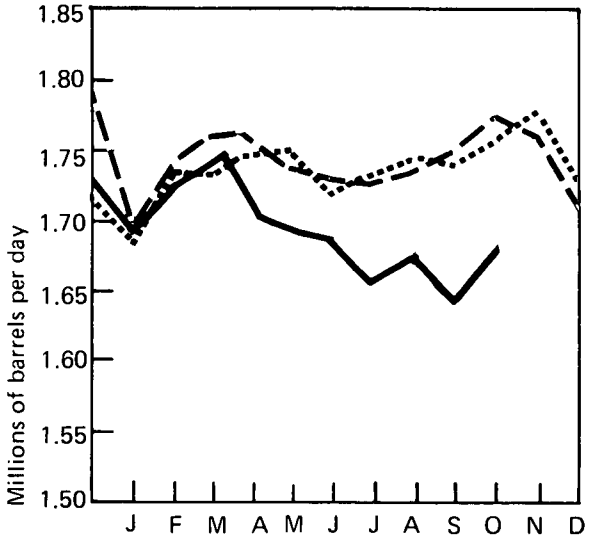
1973, production has been lower in 8 of the first 10 months of 1974—and in each of the past 6 months—while stocks have been well above last year's levels during all 10 months of 1974.

Compared with last year, imports of natural gas liquids, for the second consecutive month, decreased by a greater amount than demand, production, or stocks, falling 14.9 percent. More significantly, imports have also declined more than any of these other categories during the first 10 months of 1974 versus 1973, dropping 8.7 percent.

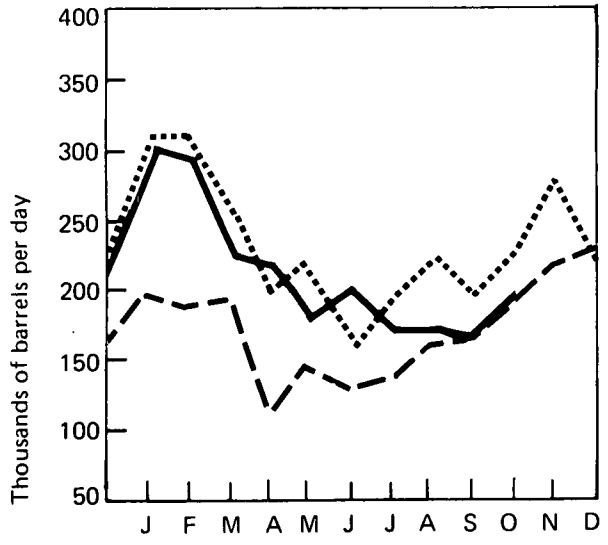
Domestic Demand



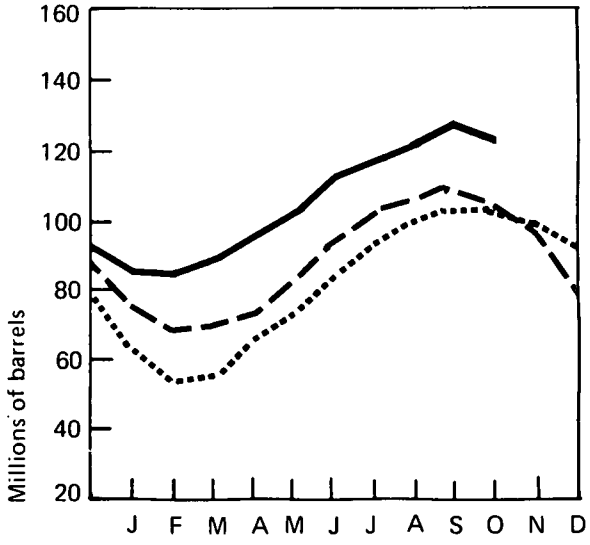
Production



Imports



Stocks



Natural Gas

With the start of the high-demand winter heating season in October, marketed production of natural gas in the United States rose 3.0 percent to 1,814 billion cubic feet, marking the first monthly increase in marketed production since July. However, it was 3.3 percent below the October 1973 figure of 1,875 billion cubic feet. Moreover, the increase had a negligible effect on the declining 1974 cumulative production figure which remains about 3 percent below the level for 1973.

Imports of natural gas for the month of September have been revised downwards from 75 to 70 billion cubic feet. The preliminary estimate of October imports, at 83 billion cubic feet, represented a decline of 8.8 percent from October 1973. Utilizing projected data for November and December, it is estimated that imports of natural gas for 1974 were 956 billion cubic feet, a figure 7.5 percent below last year.

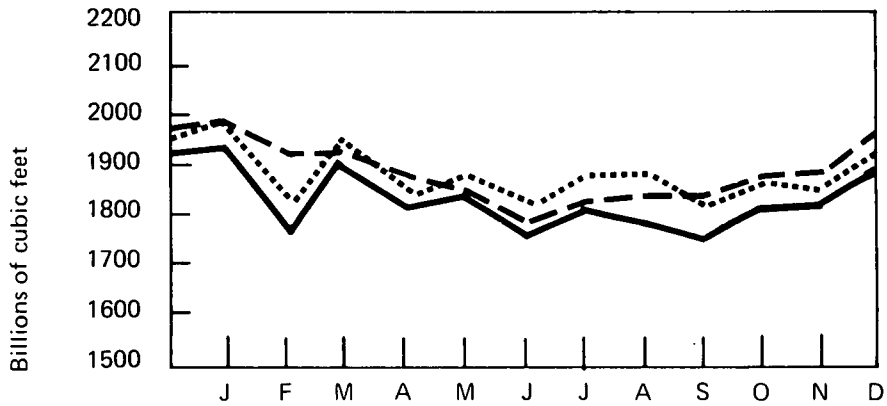
Similar to trends exhibited by marketed production, domestic producer sales to major interstate pipelines showed a seasonal increase in October, rising 7.5 percent from September's level of 871 billion cubic feet to 936 billion cubic feet. Sales were down 6.5 percent, however,

		Marketed Production	Domestic Producer Sales to Major Interstate Pipelines	Imports
		In billion cubic feet		
1972	January	1,994	1,086	117
	February	1,902	1,035	112
	March	1,937	1,091	88
	April	1,893	1,050	134
	May	1,867	1,045	111
	June	1,797	985	108
	July	1,837	1,013	102
	August	1,859	1,007	97
	September	1,854	970	114
	October	1,889	1,040	103
	November	1,896	1,041	111
	December	1,961	1,065	111
1973	January	1,994	1,069	93
	February	1,821	963	84
	March	1,952	1,052	91
	April	1,864	1,007	88
	May	1,898	1,026	86
	June	1,839	963	79
	July	1,880	999	80
	August	1,896	994	85
	September	1,840	956	82
	October	1,875	1,001	91
	November	1,863	1,000	85
	December	1,926	1,036	89
1974	January	1,944	1,033	86
	February	1,773	941	79
	March	1,907	1,027	85
	April	1,812	987	83
	May	1,853	981	80
	June	1,777	928	74
	July	1,827	947	74
	August	1,797	932	76
	September	R1,761	871	70
	October	R*1,814	936	R83
	November	R**1,820		R**82
	December	**1,890		**84

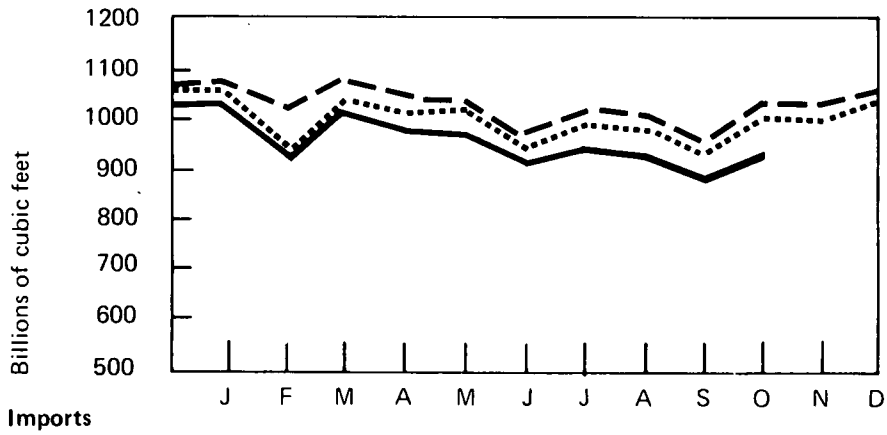
*Preliminary data.
**Projected data.
R=Revised data.
Sources: Marketed Production and Imports—Bureau of Mines. Domestic Producer Sales—Federal Power Commission.

compared with the October 1973 level of 1,001 billion cubic feet.

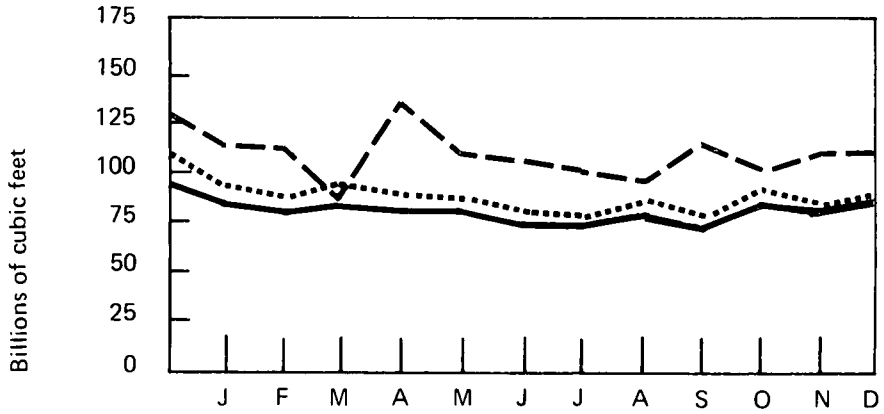
Marketed Production



Domestic Producer Sales to Major Interstate Pipelines



Imports



— — 1972
····· 1973
——— 1974

Coal

Production of bituminous coal and lignite in December 1974 totaled 38.3 million tons, a decrease of about 10 million tons from December 1973. Moreover, production for the months of November and December 1974 was 29 million tons, or 30 percent, less than for the corresponding months in 1973. These decreases reflect the impact of the 24-day strike by United Mine Workers of America (UMWA). Production for the year totaled about 590 million tons, only slightly less than the production levels in each of the previous 2 years. The impact of the strike was offset by a 28-million ton increase in production during the first 10 months of the year compared with 1973. If the strike and the 5-day miners' memorial in August had not occurred, total production for the year would have been in the order of 625 million tons, or 5 percent greater than levels for the past 2 years and the highest level since 1947.

Domestic coal consumption was an estimated 45.4 million tons in November, representing only a slight decrease from both October 1974 and November 1973. During the strike period, the only sector to appreciably

Bituminous and Lignite

		Domestic Consumption*	Production**	Exports	Stocks
			In thousands of short tons		
1972	January	43,951	49,680	3,660	91,178
	February	43,178	49,112	3,630	92,183
	March	43,773	54,438	4,624	96,795
	April	40,158	49,814	4,915	102,981
	May	40,588	52,879	5,416	110,577
	June	40,505	50,083	4,882	115,723
	July	43,071	40,964	3,627	111,353
	August	44,698	52,169	6,337	114,665
	September	42,002	49,374	4,923	116,196
	October	43,050	51,671	R5,210	120,135
	November	44,104	50,297	5,380	121,401
	December	47,698	44,904	3,392	117,442
1973	January	49,838	49,379	2,954	R111,120
	February	44,652	45,893	2,669	R108,870
	March	44,814	50,547	3,377	R111,490
	April	42,689	46,999	5,063	R112,585
	May	R43,628	51,420	5,140	R116,890
	June	45,115	46,613	4,969	R109,960
	July	R47,715	43,801	R4,188	R107,390
	August	48,840	55,874	R5,133	R106,910
	September	45,471	48,338	3,424	R106,230
	October	46,427	54,382	5,882	R107,490
	November	46,703	49,826	5,214	R107,110
	December	50,130	48,666	4,889	R102,200
1974	January	50,415	53,470	2,813	99,275
	February	45,122	49,010	4,627	96,940
	March	46,402	51,455	3,179	99,895
	April	44,065	53,820	4,944	106,972
	May	45,712	57,135	6,032	110,018
	June	44,631	47,635	6,369	110,965
	July	48,547	47,855	5,307	106,091
	August	48,753	50,285	5,088	105,810
	September	44,506	52,460	4,893	109,205
	October	45,776	58,705	7,342	116,671
	November	†45,400	R30,865	6,744	†108,200
	December		***38,290		

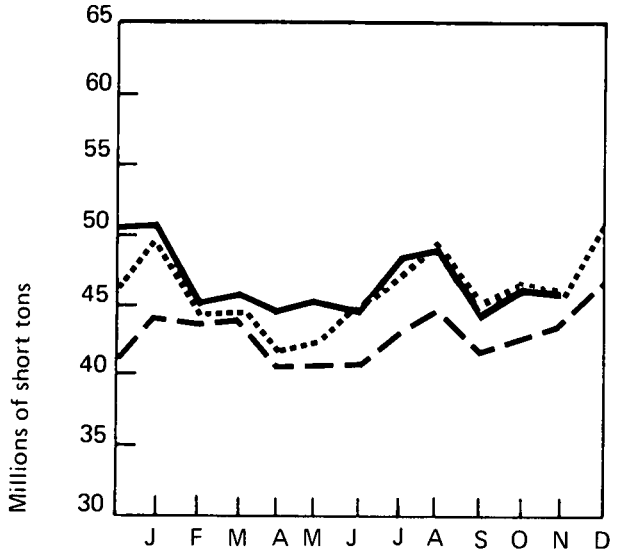
*See Explanatory Note 6.
**See Explanatory Note 7.
***Preliminary data.
R=Revised data.
†FEA estimate based on Federal Power Commission and Bureau of Mines data.
Source: Bureau of Mines.

reduce consumption was the coking industry, which used about 15 percent less coal than it did in November of last year.

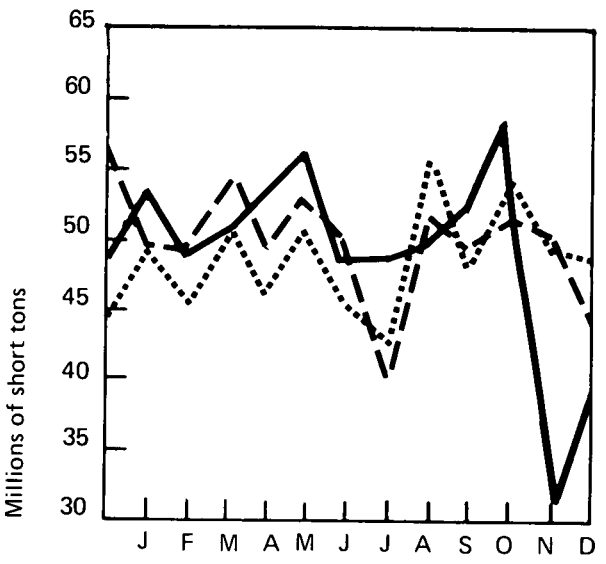
Total stocks of coal as of the end of November were estimated at 108.2 million tons, down 8.5 million tons from inventories at the end of October. This stock drawdown was necessary because of delivery curtailments during the strike. However, the November inventory level still compares favorably with the 107.1-million ton level at the end of November last year.

Exports of coal for November were 6.7 million tons, the second highest volume (after October) for any month in the year so far. This high export level was probably the result of foreign efforts to increase coal inventories in preparation for the UMWA strike. Weekly data indicate, however, that December exports will be down considerably.

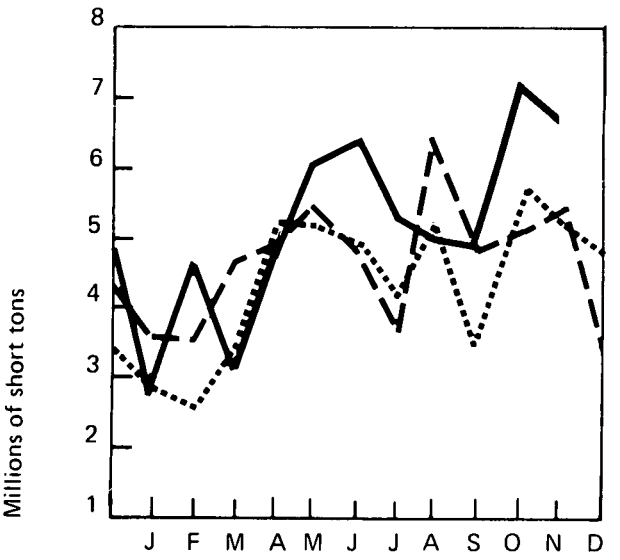
Domestic Consumption



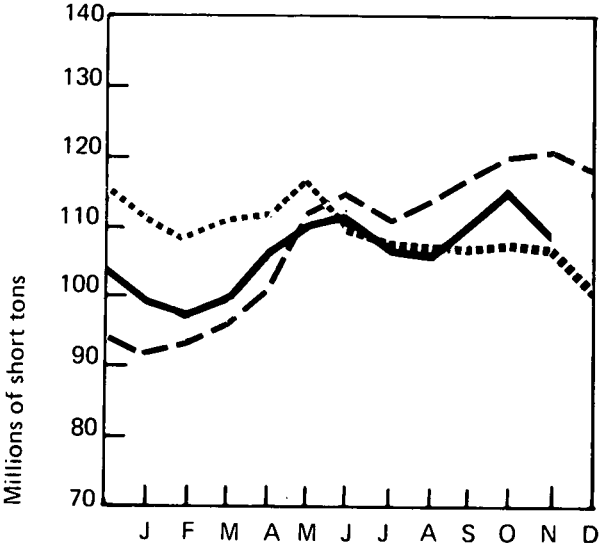
Production



Exports



Stocks



1972
1973
1974

Part 3

Electric Utilities

Electric Utilities

Total production of electricity by utilities for the month of December was 158,852,000 kilowatt hours, an increase of 6.3 percent over November. During the last 3 years the pattern has been for production to increase significantly in December, primarily due to increased heating and lighting requirements, including decorative holiday lighting. Nonetheless, total production for the year was down 0.4 percent from 1973.

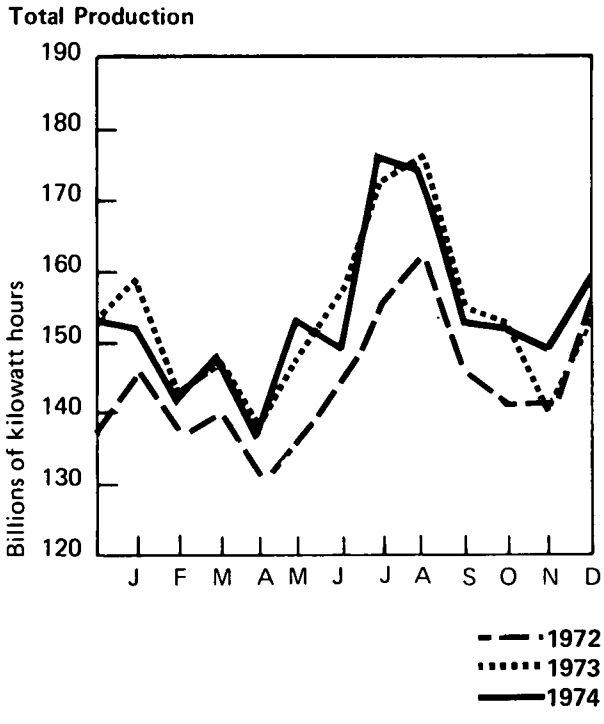
During 1974, the contribution of nuclear power to total electricity production increased significantly, from 5.7 percent in November 1973 to 7.1 percent in November 1974. This gain appears to have come at the expense of the production shares from gas and coal.

Coal and oil stocks in November decreased slightly from the previous month but were still considerably higher than in November 1973. This growth was particularly true for oil, which grew 44 percent over the past 12 months. Both coal and oil stocks represent about a 2.5-month supply at current consumption rates.

This month's issue introduces a new table containing time-series data pertaining to the sales' volume of

(Continued on page 30)

		Total Production	Percentage Produced from Each Source					
		In millions of kilowatt hours	Coal	Oil	Gas	Nuclear	Hydro-electric	Other*
1972	January	144,575	45.4	17.9	16.6	2.9	16.9	0.3
	February	137,301	45.7	17.3	18.0	2.6	16.1	0.3
	March	140,056	44.3	15.2	20.0	3.0	17.2	0.3
	April	132,138	43.6	13.4	22.3	2.7	17.7	0.3
	May	137,745	43.3	12.7	24.0	2.1	17.6	0.3
	June	145,523	42.3	13.3	25.5	2.6	15.9	0.4
	July	157,846	42.1	14.1	25.7	2.9	14.9	0.3
	August	162,822	42.8	13.7	25.7	3.5	13.9	0.4
	September	147,358	43.4	14.7	25.5	3.2	12.9	0.3
	October	143,742	44.3	14.1	25.2	3.2	13.0	0.2
	November	143,867	45.7	18.3	17.2	3.7	14.8	0.3
	December	154,350	45.9	19.5	14.4	3.9	16.0	0.3
1973	January	159,320	47.2	19.3	13.1	3.9	15.8	0.7
	February	143,109	47.4	18.1	14.0	4.1	16.0	0.4
	March	147,754	45.6	16.2	16.2	4.5	17.2	0.3
	April	139,273	46.0	14.4	17.9	4.2	17.2	0.3
	May	147,021	44.2	14.6	20.2	3.8	16.8	0.4
	June	160,962	43.5	16.0	21.6	4.2	14.5	0.2
	July	172,539	44.1	16.5	22.5	4.0	12.7	0.2
	August	175,928	44.5	17.2	21.6	4.4	11.9	0.4
	September	156,304	45.6	17.2	21.0	4.9	11.0	0.3
	October	153,888	45.6	17.6	19.8	4.8	11.8	0.4
	November	140,785	47.3	16.6	16.5	5.7	13.5	0.4
	December	153,276	47.9	16.3	13.2	5.1	17.1	0.4
1974	January	152,226	48.2	17.1	13.5	4.9	15.9	0.4
	February	141,723	46.7	15.7	13.3	5.5	18.4	0.4
	March	148,046	45.3	14.7	15.6	5.5	18.5	0.4
	April	137,586	45.0	14.1	17.4	4.3	19.0	0.2
	May	153,076	44.3	14.7	18.4	4.0	18.3	0.3
	June	148,119	44.6	14.6	20.0	4.1	16.5	0.2
	July	175,057	43.0	15.4	21.1	5.5	14.6	0.4
	August	174,021	43.0	15.6	20.3	7.3	13.4	0.4
	September	151,963	43.5	16.1	19.1	7.1	14.0	0.2
	October	151,768	44.0	16.6	18.4	7.0	13.8	0.2
	November	R149,504	45.0	18.4	15.2	7.1	14.2	0.1
	December	158,852						

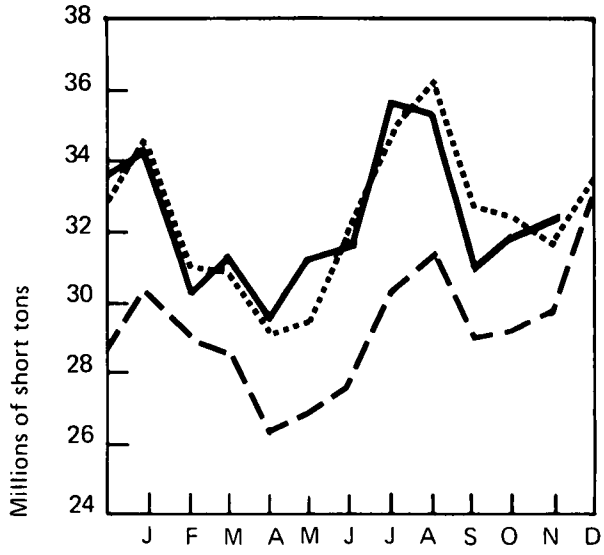


*Includes electricity produced from geothermal power, wood, and waste. R = Revised data.
Sources: Federal Power Commission.
Production data for latest month are from Edison Electric Institute.

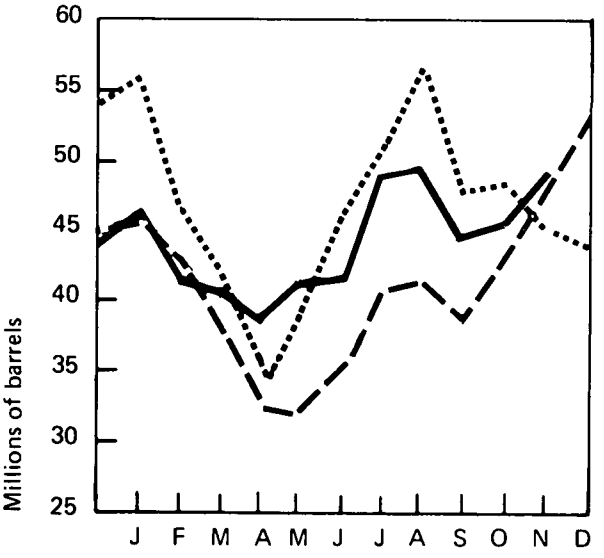
		Fuel Consumption		
		Coal	Oil	Gas
		In thousands of short tons	In thousands of barrels	In millions of cubic feet
1972	January	30,231	46,555	251,029
	February	28,946	43,325	258,859
	March	28,472	38,809	294,804
	April	26,093	32,325	312,229
	May	26,823	32,106	351,543
	June	27,749	35,098	394,585
	July	30,214	40,646	433,533
	August	31,651	41,073	448,594
	September	28,988	38,723	398,799
	October	29,133	42,876	337,567
	November	29,926	47,914	262,447
	December	32,817	54,479	234,683
1973	January	34,591	55,773	219,270
	February	30,921	46,978	212,983
	March	30,746	42,701	255,314
	April	29,209	35,845	267,151
	May	29,683	38,097	316,989
	June	31,953	46,669	363,239
	July	34,833	50,956	414,408
	August	36,065	55,166	482,053
	September	32,723	47,937	418,776
	October	32,398	48,033	327,010
	November	31,856	45,158	247,038
	December	33,704	44,696	217,049
1974	January	34,468	46,700	222,080
	February	30,062	41,186	185,468
	March	31,135	40,007	244,288
	April	29,452	38,124	238,272
	May	31,341	41,046	304,166
	June	31,892	41,084	341,067
	July	35,809	48,909	399,259
	August	35,365	49,084	380,979
	September	30,965	44,791	320,978
	October	31,968	45,767	300,317
	November	32,208	48,542	240,471

Source: Federal Power Commission.

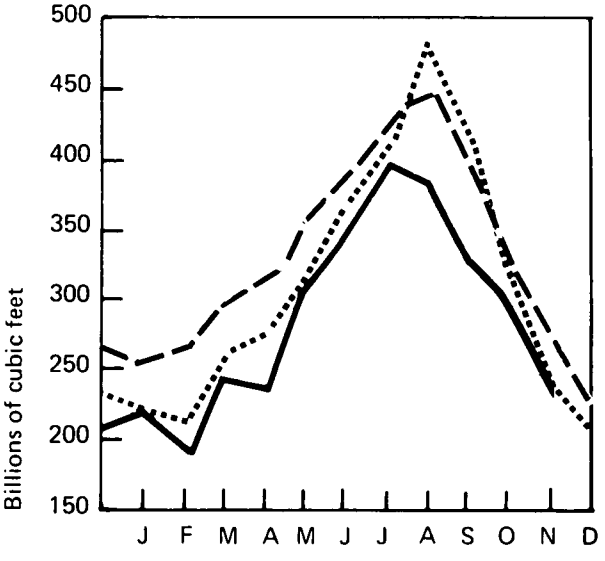
Coal Consumption



Oil Consumption



Gas Consumption



— — 1972
····· 1973
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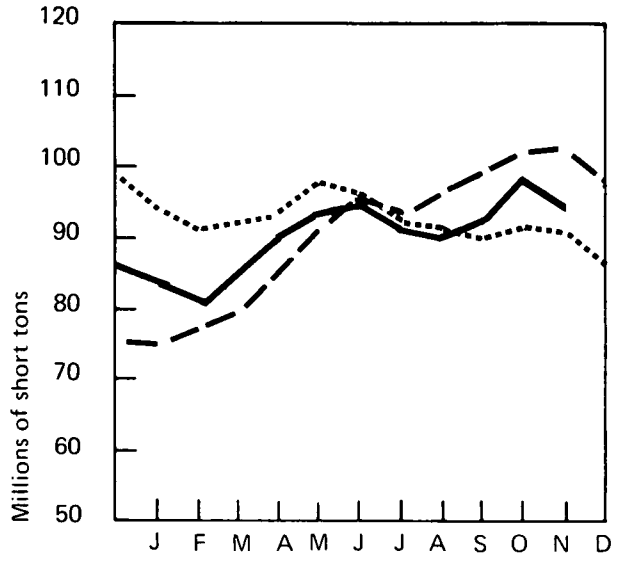
electricity to residential, commercial, and industrial customers. The series will be continued in future issues.

In recent years the volume of electricity sales typically grew about 7 percent per year. Since autumn 1973, however, kilowatt-hour sales to all customers have leveled off. In the first 10 months of 1973, kilowatt-hour sales to both residential and commercial consumers increased 8.9 percent, and those to industry increased 7.4 percent, compared with the same period in 1972. In contrast, during 1974 sales to residential and commercial users through October decreased 0.8 and 1.9 percent, respectively, while those to industry increased 0.9 percent. Total sales to all customers through October 1974 were down 0.5 percent from the same period last year.

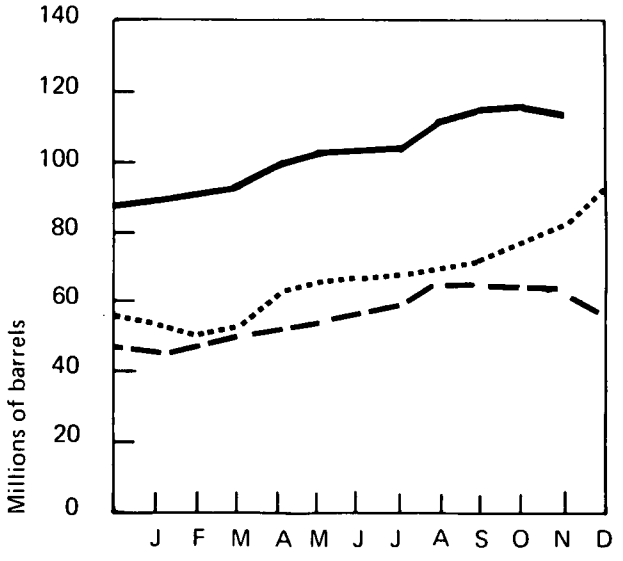
		Stocks at End of Month	
		Coal	Oil
		In thousands of short tons	In thousands of barrels
1972	January	76,876	46,055
	February	77,138	47,111
	March	80,296	52,213
	April	84,984	55,730
	May	91,778	57,399
	June	96,553	58,815
	July	93,760	60,786
	August	96,611	66,024
	September	98,396	66,004
	October	102,205	65,531
	November	102,477	62,067
	December	98,671	57,686
1973	January	95,017	53,691
	February	92,993	50,858
	March	93,986	54,885
	April	94,991	62,411
	May	98,722	64,259
	June	97,995	65,003
	July	92,215	67,987
	August	91,356	73,259
	September	90,156	74,863
	October	91,428	76,343
	November	90,369	81,224
	December	86,880	88,228
1974	January	83,366	89,053
	February	80,962	92,645
	March	84,257	94,187
	April	90,901	100,210
	May	93,628	103,606
	June	95,811	104,316
	July	91,616	105,919
	August	89,691	110,997
	September	92,704	113,570
	October	98,373	117,564
	November	93,825	116,558

Source: Federal Power Commission.

Coal Stocks



Oil Stocks



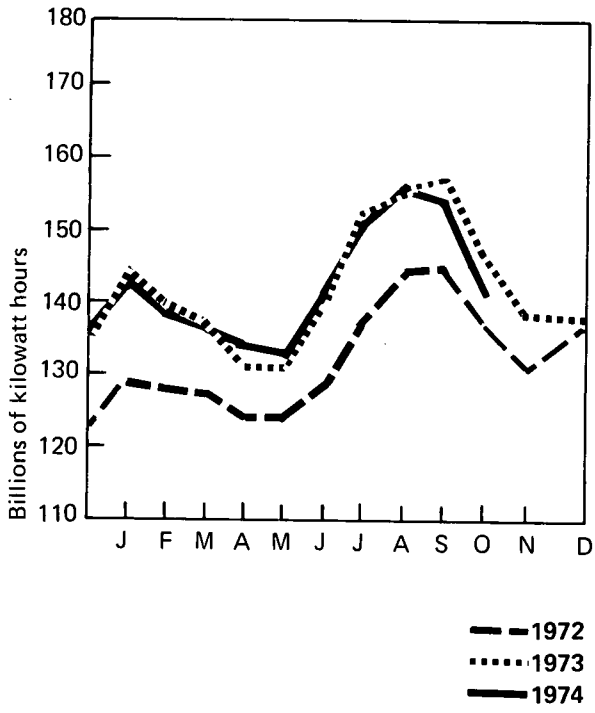
1972
1973
1974

Sales

		Residential	Commercial	Industrial	Other*	Total
		In millions of Kilowatt hours				
1972	January	46,353	27,965	50,526	4,579	129,423
	February	45,652	27,921	50,552	4,619	128,744
	March	43,559	27,856	52,086	4,606	128,107
	April	40,460	27,765	51,992	4,422	124,639
	May	38,044	27,983	53,489	4,430	123,946
	June	41,213	30,257	53,673	4,469	129,612
	July	47,813	32,211	52,702	4,666	137,392
	August	51,463	33,535	55,023	4,723	144,744
	September	50,888	33,522	55,548	4,928	144,886
	October	44,352	31,068	56,213	4,823	136,456
	November	41,672	29,426	55,251	4,986	131,335
	December	47,139	29,764	53,923	5,060	135,886
1973	January	52,840	31,182	55,274	5,209	144,505
	February	49,601	30,445	54,591	4,909	139,546
	March	46,315	30,100	55,866	4,822	137,103
	April	41,821	29,038	55,937	4,571	131,367
	May	39,825	30,060	56,838	4,638	131,361
	June	44,967	33,194	57,368	4,764	140,293
	July	54,123	36,147	57,152	5,140	152,562
	August	56,742	36,820	58,865	5,054	157,481
	September	56,210	36,711	59,178	5,211	157,310
	October	47,207	33,289	60,514	5,032	146,042
	November	43,175	31,363	58,464	5,085	138,087
	December	46,442	29,788	56,190	4,896	137,316
1974	January	52,846	30,608	55,754	4,995	144,203
	February	47,832	29,542	54,978	4,708	137,060
	March	46,154	29,309	55,999	4,693	136,155
	April	43,294	28,986	56,497	4,610	133,387
	May	41,215	29,876	57,386	4,685	133,162
	June	46,596	32,800	58,077	4,641	142,114
	July	53,435	35,229	57,899	4,965	151,528
	August	56,558	36,414	59,803	5,069	157,844
	September	53,252	35,830	60,366	4,983	154,431
	October	44,177	32,112	60,053	4,792	141,134

*Includes street lighting and trolley cars.
Source: Federal Power Commission.

Total Sales



Part 4 Resource Development

Oil and Gas Exploration

Drilling rig activity continued to post significant gains in December. There were 1,643 rotary rigs engaged in drilling for oil and gas during the month, an increase of 47 rigs (3 percent) over the November count and a 17-percent increase over December 1973. Moreover, the average number of active rigs for the year 1974 (at 1,475) was the highest since 1964 when 1,501 rigs were in operation.

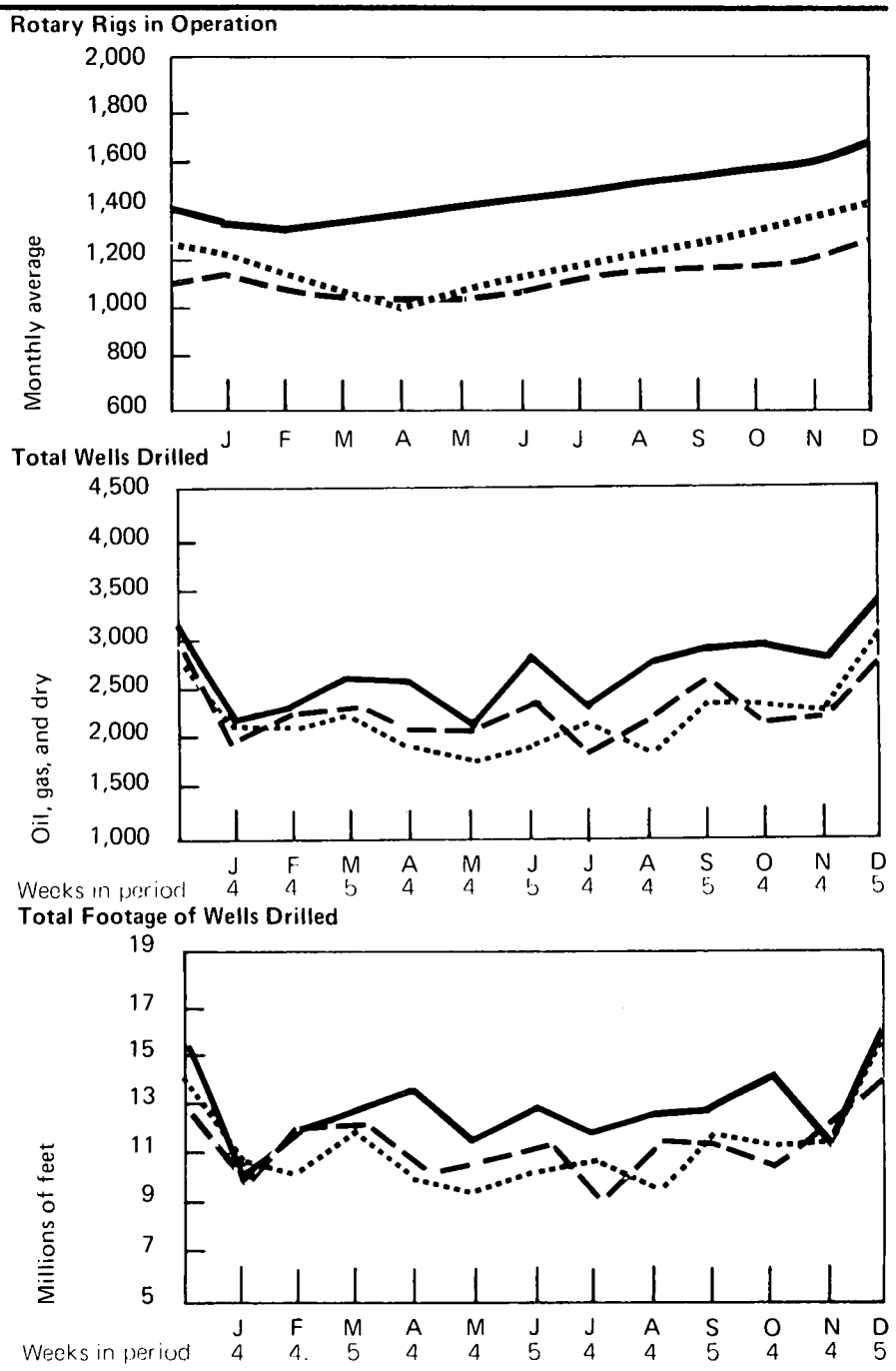
Well completions were also up substantially during the year, because more wells were drilled in 1974 than in any year since 1969. Based on monthly tabulations, 31,853 wells were drilled during 1974, representing an increase of 5,257 wells, or 20 percent, over 1973. Drilling footage, however, gained only 11 percent over last year's level, and as a result there was a net decrease in the average depth of a well of 7 percent. (The average well depth was 5,135 feet in 1973 and 4,761 feet in 1974.) This is counter to the historical trend of generally increasing well depth, and, together with the economic incentive of higher oil and gas prices, suggests that drilling efforts last year were directed toward shallow

		Rotary Rigs in Operation	Wells Drilled				Total Footage of Wells Drilled
		Monthly average	Oil	Gas	Dry	Total	
1972	January	1,147	807	281	851	1,939	9,441,238
	February	1,071	965	350	955	2,270	12,381,669
	March	1,034	1,210	394	889	2,493	12,406,433
	April	1,002	923	355	788	2,066	9,902,253
	May	1,005	920	332	816	2,068	10,218,488
	June	1,049	1,042	395	903	2,340	11,009,513
	July	1,104	833	335	795	1,963	9,212,931
	August	1,130	946	410	924	2,280	11,334,867
	September	1,152	1,065	468	1,009	2,542	11,634,026
	October	1,165	792	539	919	2,250	10,944,312
	November	1,186	860	535	975	2,370	12,360,912
	December	1,241	985	536	1,290	2,811	14,190,138
1973	January	1,219	758	406	899	2,063	10,972,665
	February	1,126	777	487	765	2,029	10,655,936
	March	1,049	953	504	909	2,366	12,317,756
	April	993	699	489	777	1,965	10,433,987
	May	1,046	749	407	647	1,803	9,622,110
	June	1,118	767	432	795	1,994	10,814,600
	July	1,155	912	504	840	2,256	10,995,939
	August	1,222	724	456	739	1,919	9,632,819
	September	1,266	854	690	940	2,484	12,075,280
	October	1,334	790	554	958	2,302	11,693,672
	November	1,390	822	606	865	2,293	11,823,350
	December	1,405	1,087	827	1,208	3,122	15,529,582
1974	January	1,372	763	577	803	2,143	10,391,797
	February	1,355	901	600	816	2,317	12,160,308
	March	1,367	936	638	1,003	2,577	12,844,135
	April	1,381	947	700	945	2,592	13,349,007
	May	1,412	957	520	870	2,347	11,459,595
	June	1,432	1,238	586	982	2,806	12,976,388
	July	1,480	1,008	461	884	2,353	11,801,777
	August	1,518	1,210	555	968	2,733	12,409,855
	September	1,527	1,200	600	1,091	2,891	12,676,090
	October	1,584	1,131	551	1,241	2,923	14,080,534
	November	1,596	1,088	626	1,053	2,767	11,794,937
	December	1,643	1,339	791	1,274	3,404	15,707,092

Sources: Rotary Rigs - Hughes Tool Company.
Wells - American Petroleum Institute.

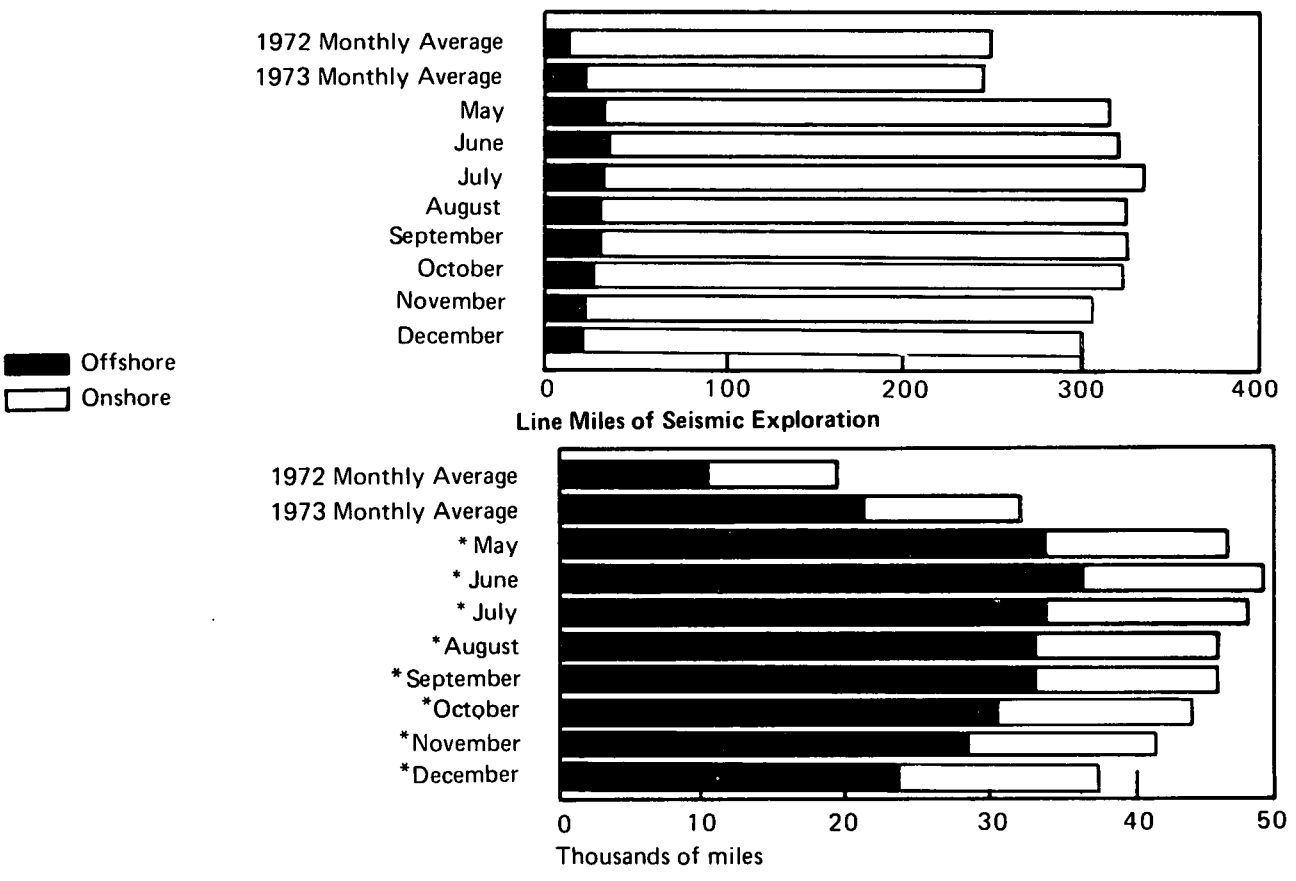
(and usually smaller) reservoirs near known productive areas which were not previously considered profitable for development.

Based on data available for the last 8 months of the year, the average number of crews engaged in prospecting for oil and gas each month during 1974 has been estimated by the Society of Exploration Geophysicists at approximately 300. This is the highest level of seismic activity since 1966 and represents a 20-percent increase over the average level for 1973. During December, there were 275 land crews and 25 marine crews at work, a decrease of 1 land crew and 5 marine crews from the previous month.



Oil and Gas Exploration *(Continued)*

	Crews Engaged in Seismic Exploration			Line Miles of Seismic Exploration		
	Offshore	Onshore	Total	Offshore	Onshore	Total
1972 Monthly Average	12	239	251	10,306	9,333	19,639
1973 Monthly Average	23	227	250	21,579	10,597	32,175
1974					Estimates*	
May	35	278	313	33,320	13,066	46,386
June	38	279	317	36,176	13,113	49,289
July	35	299	334	33,320	14,053	47,373
August	34	287	321	32,368	13,489	45,857
September	34	287	321	32,368	13,489	45,857
October	32	288	320	30,464	13,586	44,000
November	30	276	306	28,564	12,972	41,532
December	25	275	300	23,800	12,925	36,725



*See Explanatory Note 8. Source: Society of Exploration Geophysicists.

Part 5

Price

Motor Gasoline

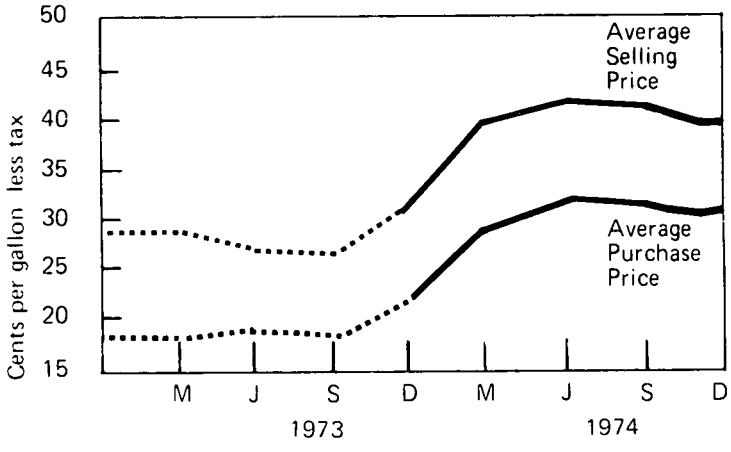
A survey of retail dealers during December indicated that the national average selling price of regular gasoline remained the same as during November. The average price that retailers paid for regular gasoline increased by 0.1 cent per gallon, resulting in a 0.1-cent per gallon decline in the dealer margin. The dealer margin has declined 2.1 cents per gallon since its high in March, a decrease of almost 20 percent. Retailers of independent brand gasoline continued to decrease their selling prices on all types of gasoline, whereas retailers of major brand gasoline increased their regular and unleaded gasoline prices slightly but maintained premium gasoline prices at their November levels. The average price of regular gasoline sold by independent retailers during December was 4.4 cents per gallon lower than the average major brand retail gasoline price. On a regional basis, Region 2 (Washington, D.C., Baltimore, Philadelphia) had the highest selling price for the fourth consecutive month. The average selling prices for all regions, however, were relatively unchanged from their November levels.

Regular Gasoline at Retail Outlets

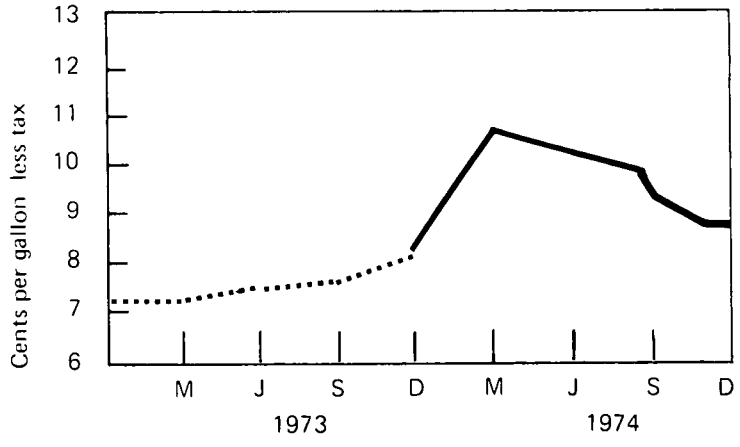
		Average Selling Price	Average Purchase Price	Average Dealer Margin
		Cents per gallon, less tax		
1973	January	25.31	18.46	6.85
	February	24.81	18.09	6.72
	March	25.94	18.75	7.19
	April	26.32	19.02	7.30
	May	26.49	19.21	7.28
	June	26.78	19.22	7.56
	July	26.82	19.22	7.60
	August	26.81	19.21	7.60
	September	26.74	19.13	7.61
	October	27.7	20.2	7.4
	November	29.3	21.6	7.7
	December	31.3	23.1	8.2
1974	January	34.1	25.2	8.9
	February	36.6	27.5	9.1
	March	40.1	29.2	10.8
	April	41.2	30.5	10.7
	May	42.5	31.9	10.5
	June	42.9	32.6	10.3
	July	43.0	32.8	10.2
	August	42.7	32.9	9.7
	September	42.0	32.6	9.4
	October	40.2	31.2	9.0
	November	39.8	31.0	8.8
	December	39.8	31.1	8.7

Sources: Platts Oilgram through September 1973. FEA retail gasoline survey from October 1973 forward.

Average Retail Prices For Regular



Average Margins For Regular



····· 1973
—— 1974

A December survey of 21 major oil companies disclosed that 1 company lowered its price, 16 did not change prices, and 4 companies increased prices during the month.

A December survey revealed that the dealer tankwagon (DTW) price of gasoline sold by major companies to branded retail outlets increased 0.10 cent per gallon during the month. The jobber buying price, however, posted an even larger gain of 0.26 cent per gallon during December, and, as a result, the average jobber margin declined by 0.16 cent per gallon.

Product at Retail Outlets	Average Seeling Price		Average Margins	
	December 1974	November 1974	December 1974	November 1974
	Cents per gallon, less tax			
Regular Gasoline:				
Major	40.7	40.6	9.3	9.3
Independent	36.3	36.7	6.4	6.6
National Average	39.8	39.8	8.7	8.8
Premium Gasoline:				
Major	44.9	44.9	10.3	10.4
Independent	40.2	40.6	7.8	8.0
National Average	44.1	44.1	9.9	9.9
No Lead Gasoline:				
Major	42.5	42.4	9.7	9.7
Independent	38.3	38.7	7.3	7.5
National Average	41.7	41.7	9.3	9.3
Diesel Fuel:				
Major	38.3	38.5	8.5	8.3
Independent	34.4	34.0	5.3	4.7
National Average	37.0	37.1	7.5	7.2

Source: FEA retail gasoline survey.

Regular Gasoline at Retail Outlets		Average Selling Price	Average Margin
		December 20, 1974	December 20, 1974
Regions		Cents per gallon, less tax	
1	Boston New York	40.5	8.5
2	Washington Baltimore Philadelphia	40.9	9.5
3	Buffalo Cleveland Pittsburgh	40.1	8.4
4	Atlanta Cincinnati	40.6	8.7
5	Detroit Chicago	40.4	8.6
6	Milwaukee Minneapolis	39.9	8.5
7	Dallas Houston	39.0	9.4
8	Kansas City St. Louis	39.2	8.4
9	San Francisco Seattle	39.9	9.8
10	Los Angeles San Diego	38.5	8.2
National Average		39.8	8.7

Source: FEA retail gasoline survey.

Motor Gasoline *(Continued)*

Retail Gasoline Price Changes During December 1974

Company	Effective Date	Amount of Change
		Cents per gallon
Amerada Hess	December 3	-1.0
American Petrofina		None
Ashland		None
Atlantic Richfield		None
B.P.		None
Cities Service		None
Champlin	December 7	1.5
Continental		None
Exxon		None
Getty	December 31	1.0
Gulf		None
Kerr–McGee		None
Mobil	December 6	1.0
Phillips		None
Shell		None
Standard Oil of California	December 6	1.5
Standard Oil of Indiana		None
Standard Oil of Ohio		None
Sun		None
Texaco		None
Union Oil of California		None

Source: FEA Survey.

Major Brand Regular Gasoline, December 1974

Marketing Region	Retail DTW Price	Change from Previous Month	Branded Jobber Price	Change from Previous Month	Regional Jobber Margin	Change from Previous Month
			Cents per gallon			
Northeast	31.93	-0.03	27.74	-0.09	4.19	0.06
Mid Atlantic	31.25	-0.19	27.61	0.31	3.64	-0.50
Southeast	30.47	0.14	26.90	0.32	3.57	-0.18
Central	31.54	0.18	27.72	0.25	3.82	-0.07
Western	31.64	0.45	27.92	0.46	3.72	-0.01
Southwest	30.16	0.31	26.73	0.57	3.43	-0.26
Pacific	31.00	-0.14	27.32	-0.02	3.68	-0.12
Average	31.14	0.10	27.42	0.26	3.72	-0.16

Source: FEA Survey.

Heating Oil

The average price of heating oil sold to residential customers climbed to 37.9 cents per gallon during November, a substantial increase of 2.3 cents per gallon over the previous month. Most of the advance was attributed to a 2.1-cent per gallon increase in the jobber margin.

The price of heating oil for industrial use advanced by 2.9 cents to 36.2 cents per gallon. This was also due to a substantial (2.7 cents per gallon) gain in the jobber margin. The average jobber purchase price for heating oil was 29.1 cents per gallon in November, representing only a slight increase of 0.2 cent over the October level.

A December survey of 21 major oil companies indicated that their heating oil prices remained relatively stable during the month. Five companies increased prices, 13 did not change prices, and 3 decreased prices. In comparison, during November, 2 companies increased prices, 2 decreased prices, and 17 left prices unchanged.

Average Prices for November 1974

	Average Purchase Price	Residential		Institutional and Utility		Industrial	
		Selling Price	Margin	Selling Price	Margin	Selling Price	Margin
	Cents per gallon						
New England	29.8	39.0	9.2	35.0	5.2	37.0	7.2
Mid Atlantic	29.7	38.7	9.0	34.4	4.7	37.0	7.3
Southeast	28.8	37.4	8.6	32.3	3.5	36.1	7.3
East North Central	27.8	36.4	8.6	32.2	4.4	35.1	7.3
West North Central	27.6	35.6	8.0	31.3	3.7	33.6	6.0
East South Central	29.1	35.3	6.2	NA	NA	35.8	6.7
Mountain	27.9	37.3	9.4	30.6	2.7	34.6	6.7
West Coast	29.8	36.4	6.6	32.8	3.0	35.7	5.9
National Average	29.1	37.9	8.8	33.8	4.7	36.2	7.1

NA = Not available.
Source: FEA.

Price Changes During December 1974

Company	Effective Date	Amount of Change
		Cents per gallon
Amerda Hess	December 3	-2.0
American Petrofina		None
Ashland		None
Atlantic Richfield	December 30	0.8
B.P.		None
Cities Service		None
Champlin	December 7	1.0
Continental		None
Exxon	December 7	-1.5
Getty		None
Gulf		None
Kerr–McGee		None
Mobil	December 6	0.5
Phillips	December 6	-3.0
Shell		None
Standard Oil of California	December 6	1.0
Standard Oil of Indiana		None
Standard Oil of Ohio		None
Sun		None
Texaco		None
Union Oil of California	December 1	1.5

Source: FEA Survey.

Crude Oil

Final reports by domestic crude petroleum producers revealed that the average price of new oil sold at the wellhead during October was $10.74 per barrel, up 64 cents, or 6 percent, from the September level of $10.10 per barrel. This was by far the largest increase in new oil prices since December 1973 when new oil prices began to rise dramatically as a result of the Arab embargo. A preliminary estimate of the November average new oil price was $10.83 per barrel, indicating a continuation of the upward spiral of new oil prices.

During October, new oil accounted for an estimated 14 percent of total production, and released oil accounted for 8 percent. The estimated total percentage of domestic oil being sold at the free market price, including 12 percent contributed by stripper well production, was 34 percent.

A preliminary estimate of the average cost for all domestic crude petroleum delivered to refiners during November was $7.46 per barrel, which was substantially higher than the revised October figure of $7.26 per barrel.

A preliminary estimate of the refiner acquisition cost of imported crude petroleum during November was $12.53

Percentage of Domestic Production Sold at Controlled and Uncontrolled Prices

		Controlled	Uncontrolled		
		Old Oil	New Oil	Released	Stripper
1974	January	60	17	10	13
	February	62	15	10	13
	March	60	16	11	13
	April	60	16	11	13
	May	62	15	10	13
	June	63	15	9	13
	July	64	15	9	12
	August	66	14	8	12
	September	67	13	8	12
	October	*66	*14	*8	*12

*Preliminary.
Source: FEA.

Domestic Crude Petroleum Prices at the Wellhead

		Old	New
		Dollars per barrel	
1974	January	5.25	9.82
	February	5.25	9.87
	March	5.25	9.88
	April	5.25	9.88
	May	5.25	9.88
	June	5.25	9.95
	July	5.25	9.95
	August	5.25	9.98
	September	5.25	10.10
	October	5.25	R10.74
	November	5.25	*10.83

*Preliminary estimate.
R = Revised data.
Source: FEA.

per barrel, an increase of 9 cents per barrel from the revised October figure of $12.44 per barrel. This was the first increase posted since imported crude prices began declining in July. Nonetheless, the November amount was still 53 cents less than the June high of $13.06 per barrel.

Preliminary FEA reports indicated that the composite cost of crude petroleum (the average of imported and domestic) purchased by refiners increased 19 cents per barrel in November over the October level. This was the most substantial increase in the average cost for any month since May.

Landed costs of crude petroleum still vary considerably by country of origin. Of the eight largest sources of imported crude petroleum, the lowest cost crude in October came from Venezuela at $10.95 per barrel, and the highest came from Indonesia at $14.24 per barrel. The cost of imported Canadian crude, the largest source of imported crude during the month, remained relatively stable at $12.53 per barrel. The price of crude oil from Nigeria, the second largest source of imported crude, decreased 16 cents per barrel. Persian Gulf crudes, that is, those from Iran, Saudi Arabia and United Arab Emirates, showed moderate price advances in October.

Refiner Acquisition Cost of Crude Petroleum*

		Domestic	Imported	Composite
		Dollars per barrel		
1974	January	6.72	9.59	7.46
	February	7.08	12.45	8.57
	March	7.05	12.73	8.68
	April	7.21	12.72	9.13
	May	7.26	13.02	9.44
	June	7.20	13.06	9.45
	July	7.19	12.75	9.30
	August	7.20	12.68	9.17
	September	7.18	12.53	9.13
	October	R7.26	R12.44	R9.22
	November	**7.46	**12.53	**9.41

**Preliminary data.
R = Revised data.
Source: FEA.

Estimated Landed Cost of Imported Crude Petroleum From Selected Countries*

		Algeria	Canada	Indonesia	Iran	Nigeria	Saudi Arabia	U. A. Emirates	Venezuela
		Dollars per barrel							
1973	December	NA	6.32	6.42	6.37	8.54	5.49	NA	6.70
1974	January	NA	6.70	NA	8.53	12.13	NA	NA	10.28
	February	NA	10.90	NA	12.11	12.74	NA	NA	11.31
	March	NA	11.14	12.13	13.02	13.26	NA	NA	11.78
	April	13.63	11.02	12.49	12.83	13.67	11.59	NA	11.38
	May	14.67	11.47	12.95	13.84	13.83	11.53	NA	11.28
	June	14.43	12.56	13.21	13.44	13.03	11.32	13.06	10.39
	July	13.65	12.65	13.77	13.02	12.75	11.97	12.34	10.64
	August	13.96	12.49	14.38	12.31	12.70	12.16	12.69	11.20
	September	13.83	12.51	13.42	11.87	12.28	11.45	NA	11.01
	October	13.20	12.53	14.24	12.07	12.12	11.51	12.84	10.95

NA = Not available.
Source: FEA.

*See Explanatory Note 9.

Utility Fossil Fuels

Nationally, the average cost of fossil fuels delivered to utilities during September was 95.9 cents per million Btu, an increase of 0.5 cent over the August national average. This was the smallest utility fuel cost increase since May.

Regionally, the average cost of fossil fuels delivered to utilities in September showed mixed pricing trends, with 4 regions experiencing declines and 5 regions experiencing advances. The largest increases occurred in the South Atlantic and the Pacific Regions where the average fossil fuel costs rose 4.1 and 8.5 cents per million Btu, respectively. On the other hand, the largest decreases occurred in the West South Central and Middle Atlantic Regions where the average fossil fuel costs dropped 5.0 and 10.3 cents per million Btu, respectively.

On an individual fuel basis, coal prices exhibited the greatest increase again this month. The national average cost of coal advanced 1.8 cents per million Btu during September. For the second consecutive month, the largest monthly coal price increase, 7.0 cents per million Btu, occurred in the South Atlantic Region, which is the second heaviest consumer of coal as a utility fuel. The

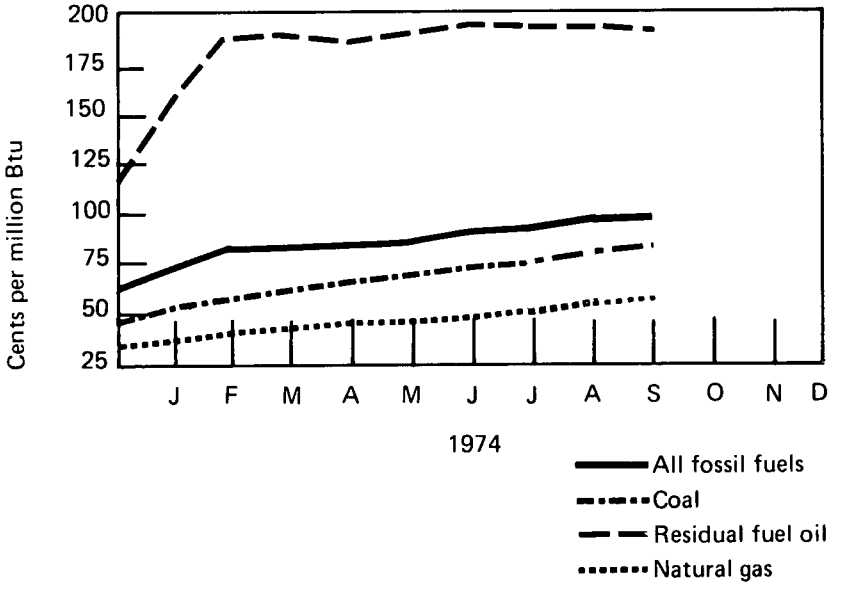
Cost of Fossil Fuels Delivered to Steam-Electric Utility Plants All Fossil Fuels*

Cents per million Btu

Region	1974	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
New England		147.7	175.7	192.7	186.8	180.0	184.7	186.2	191.4	191.6
Middle Atlantic		111.6	129.0	123.9	124.9	124.2	137.6	144.7	147.8	137.5
East North Central		52.5	57.0	62.3	63.7	68.9	76.9	79.1	82.7	82.5
West North Central		47.8	40.5	36.5	42.4	43.9	47.2	45.3	50.3	51.0
South Atlantic		88.5	100.6	102.8	105.9	109.8	119.0	123.7	128.2	132.3
East South Central		46.0	52.4	54.1	54.4	58.3	62.5	65.7	68.2	69.7
West South Central		48.9	46.2	48.0	44.1	47.3	50.0	59.4	57.1	52.1
Mountain		43.7	48.1	42.7	43.1	36.3	40.3	45.0	46.8	45.0
Pacific		119.7	160.3	114.1	117.8	122.4	117.9	118.9	118.8	127.3
National Average		74.4	81.6	80.9	81.1	81.2	87.7	92.2	95.4	95.9

*See Explanatory Note 10.

National Average



Middle Atlantic Region registered the only reduction in September coal prices, amounting to 2.2 cents per million Btu.

Residual fuel oil prices on a national level declined 0.3 cent per million Btu during September, reflecting continuing stable market conditions. Nevertheless, some regional fluctuations in price did occur. The Mountain and the West North Central Regions posted the greatest price increases: 7.7 and 4.5 cents per million Btu, respectively. However, these regions are not large consumers of residual fuel as they account for only about 2 percent of all residual fuel consumed by utilities in the United States. The Pacific Region, which consumes 14 percent of the residual, showed a price increase of 2.0 cents per million Btu. The largest price declines were in the New England Region (2.0 cents per million Btu) and in the Middle Atlantic Region (3.8 cents per million Btu). These two regions account for approximately 45 percent of all residual fuel consumed by utilities in the United States.

Natural gas prices continued their gradual upward trend with an increase in the national average of 0.6 cent per

Coal

Cents per million Btu

Region 1974	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
New England	102.8	114.2	132.0	136.8	128.8	95.9	106.8	93.7	93.9
Middle Atlantic	60.2	69.5	73.1	80.8	79.3	88.6	94.3	97.4	95.2
East North Central	48.9	52.4	57.4	59.2	65.3	71.7	73.0	77.7	78.1
West North Central	36.7	36.3	37.7	41.0	41.7	42.0	44.0	48.3	50.5
South Atlantic	66.3	76.7	81.7	85.3	88.0	90.2	100.4	107.5	114.5
East South Central	43.3	49.8	51.6	52.7	54.2	57.9	57.7	61.6	64.1
West South Central	13.6	13.6	13.6	13.6	13.6	17.7	17.7	17.7	17.7
Mountain	25.9	26.8	26.1	26.7	24.9	25.7	25.0	25.1	25.1
Pacific	35.0	NA	35.1	35.3	35.6	35.5	37.8	38.3	39.0
National Average	51.4	56.9	60.8	64.0	65.8	69.5	72.9	77.3	79.1

Residual Fuel Oil*

Cents per million Btu

Region 1974	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
New England	156.6	190.5	208.1	199.4	193.1	201.1	199.2	201.8	199.8
Middle Atlantic	186.5	208.1	212.2	196.0	208.6	207.7	208.6	204.5	200.7
East North Central	110.3	127.2	158.3	183.6	138.7	198.2	182.7	164.4	161.5
West North Central	160.0	154.8	169.1	178.2	160.9	179.3	152.7	178.1	182.6
South Atlantic	140.6	167.3	172.7	172.8	174.9	181.5	178.7	178.9	179.3
East South Central	112.5	132.2	136.0	153.0	164.9	171.5	169.6	172.6	173.9
West South Central	107.5	126.8	144.6	159.4	152.1	161.1	187.5	179.3	180.8
Mountain	159.2	174.9	172.1	174.1	194.4	199.2	176.2	179.0	186.7
Pacific	155.5	191.2	161.8	180.8	188.7	202.5	204.9	220.3	222.3
National Average	158.2	185.9	188.0	186.5	188.1	194.9	194.2	194.6	194.3

Natural Gas**

Cents per million Btu

Region 1974	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
New England	57.1	73.3	134.2	116.4	116.3	124.7	138.7	141.2	132.5
Middle Atlantic	64.2	72.7	72.4	59.5	59.3	77.3	85.2	74.2	80.5
East North Central	63.8	62.4	65.7	60.1	72.0	76.1	77.3	80.5	84.3
West North Central	35.7	38.0	39.5	41.2	41.8	41.7	42.1	43.3	43.8
South Atlantic	51.7	57.3	61.9	63.2	57.8	59.8	60.9	58.3	55.8
East South Central	45.5	48.1	47.7	50.7	50.5	52.8	63.3	58.9	71.2
West South Central	32.9	35.2	37.6	39.1	39.5	43.6	43.8	46.8	46.0
Mountain	47.9	54.5	48.4	48.3	48.8	49.2	50.8	49.5	52.1
Pacific	48.2	47.6	46.6	49.8	50.4	50.7	60.0	64.0	64.7
National Average	37.3	39.8	42.5	43.6	44.0	47.9	49.8	51.8	52.4

NA = Not available.
*See Explanatory Note 10.
**Includes small quantities of coke oven gas, refinery gas, and blast furnace gas.
Source: Federal Power Commission.

million Btu in September. The most substantial regional price advance occurred in the East South Central Region (12.3 cents per million Btu). In addition, two significant gas price increases of 6.3 and 3.8 cents per million Btu occurred in the Middle Atlantic and East North Central Regions, respectively. Three regions showed price declines in September: the New England Region (8.7 cents per million Btu), the South Atlantic Region (2.5 cents per million Btu), and the West Central Region (0.8 cent per million Btu). Although the decrease for the West South Central Region was relatively small, it affected approximately 56 percent of all gas consumed by utilities during the month.

Definitions

Base Production Control Level
The total number of barrels of domestic crude petroleum produced from a particular property in the corresponding month of 1972.

Ceiling Price
The maximum permissible selling price for a particular grade of domestic crude petroleum in a particular field is the May 15, 1973, posted price plus $1.35 per barrel.

Controlled Crude Oil
Domestically produced crude petroleum that is subject to the ceiling price for crude oil. For a particular property which is not a stripper-well lease, the volume of controlled oil equals the base production control level minus an amount of released oil equal to the new oil production from that property.

Crude Oil Domestic Production
The volume of crude oil flowing out of the ground. Domestic production is measured at the wellhead and includes lease condensate, which is a natural gas liquid recovered from lease separators or field facilities.

Crude Oil Imports
The monthly volume of crude oil imported which is reported by receiving refineries, including crude oil entering the U.S. through pipelines from Canada.

Crude Oil Input to Refineries
Total crude oil used as input for the refining process, less crude oil lost or used for refinery fuel.

Crude Oil Stocks
Stocks held at refineries and at pipeline terminals. Does not include stocks held on leases (storage facilities adjacent to the wells), which historically total approximately 13 million barrels.

Dealer Tankwagon (DTW) Price
The price at which a retail dealer purchases gasoline from a distributor or a jobber.

Distillate Fuel Oil
The lighter fuel oils distilled off during the refining process. Included are products known as ASTM grades Nos. 1 and 2 heating oils, diesel fuels, and No. 4 fuel oil. The major uses of distillate fuel oils include heating, fuel for on and off highway diesel engines, and railroad diesel fuel. Minor quantities of distillate fuel oils produced and/or held as stocks at natural gas processing plants are not included in this series.

Domestic Non-controlled Crude Oil
That portion of domestic crude oil production including new, released, and stripper oil which may be sold at a price exceeding the ceiling price.

Electricity Production -
Production at electric utilities only. Does not include industrial electricity generation.

Firm Natural Gas Service
High priority gas service in which the pipeline company is under contract to deliver a specified volume of gas to the customer on a non-interruptible basis. Residential and small commercial facilities usually fall into this category.

Interruptible Natural Gas Service
Low priority gas service in which the pipeline company has the contractual option to temporarily terminate deliveries to customers by reason of claim of firm service customers or higher priority users. Large commercial facilities, industrial users, and electric utilities usually fall into this category.

Jet Fuel
Includes both naphtha-type and kerosine-type fuels meeting standards for use in aircraft turbine engines. Although most jet fuel is used in aircraft, some is used for other purposes, such as for generating electricity in gas turbines.

Jobber
A petroleum distributor who purchases refined product from a refiner or terminal operator for the purpose of reselling to retail outlets and commercial accounts or for the purpose of retailing through his own retail outlets.

Jobber Margin
The difference between the price at which a jobber purchases refined product from a refiner or terminal operator and the price at which the jobber sells to retail outlets. This does not reflect margins obtained by jobbers through retail sales or commercial accounts.

Jobber Price
The price at which a petroleum jobber purchases refined product from a refiner or terminal operator.

Landed Cost
The cost of imported crude oil equal to actual cost of crude at point of origin plus transportation cost to the United States.

Line Miles of Seismic Exploration
The distance along the earth's surface that is covered by seismic traverses.

Motor Gasoline Production
Total production of motor gasoline by refineries, measured at refinery outlet. Relatively small quantities of motor gasoline are produced at natural gas processing plants, but these quantities are not included.

Motor Gasoline Stocks
Primary motor gasoline stocks held by gasoline producers. Stocks at natural gas processing plants are not included.

Natural Gas Imports
This is based on data collected by the Federal Power Commission from major interstate pipeline companies.

Natural Gas Liquids
Products obtained from natural gasoline plants, cycling plants, and fractionators after processing the natural gas. Included are ethane, liquified petroleum (LP) gases (propane, butane, and propane-butane mixtures), natural gasoline, plant condensate, and minor quantities of finished products such as gasoline, special naphthas, jet fuel, kerosine, and distillate fuel oil.

Natural Gas Marketed Production
Gross withdrawals from the ground, less gas used for repressuring and quantities vented and flared. Gas volumes are reported at a base pressure of 14.73 pounds per square inch absolute at 60^{o}F. Data are from Bureau of Mines and are collected from reports received from the Interstate Oil Compact Commission provided by State agencies.

New Oil
The volume of domestic crude petroleum produced from a property in a specific month which exceeds the base production control level for that property.

Old Oil
Same as controlled crude oil.

Primary Stocks of Refined Products
Stocks held at refineries, bulk terminals, and pipelines. They do not include stocks held in secondary

storage facilities, such as those held by jobbers, dealers, independent marketers, and consumers.

Refined Products Domestic Demand
A calculated value, computed as domestic production plus net imports (imports less exports), less the net increase in primary stocks. It, therefore, represents the total disappearance of refined products from primary supplies.

Refined Products Imports
Imports of motor gasoline, naphtha-type jet fuel, kerosine-type jet fuel, liquified petroleum gases, kerosine, distillate fuel oil, residual fuel oil, petrochemical feedstocks, special naphthas, lubricants, waxes, and asphalt. Imports of bonded bunkers, jet fuel, distillate and residual fuel oils for onshore military use, and receipts from Puerto Rico, the Virgin Islands, and Guam are based on data reported to the Oil Import Administration of FEA. All other figures are compiled by Bureau of Mines from Department of Commerce data.

Refiner Acquisition Cost
The cost to the refiner, including transportation and fees, of crude petroleum. The composite cost is the average of domestic and imported crude costs and represents the amount of crude cost which refiners may pass on to their customers.

Released Oil
That portion of the base production control level for a property which is equal to the volume of new oil produced in that month and which may be sold above the ceiling price. The amount of released oil may not exceed the base production control level for that property.

Residual Fuel Oil
The heavier oils that remain after the distillate fuel oils and lighter hydrocarbons are boiled off in refinery operations. Included are products known as ASTM grades Nos. 5 and 6 oil, heavy diesel oil, Navy Special Oil, Bunker C oil, and acid sludge and pitch used as refiner fuels. Residual fuel oil is used for the production of electric power, for heating, and for various industrial purposes.

Rotary Rig
Machine used for drilling wells that employs a rotating tube attached to a bit for boring holes through rock.

Stripper Well Lease
A property of which the average daily production of crude petroleum and petroleum condensates, including natural gas liquids, per well did not exceed 10 barrels per day during the preceding calendar month.

Well
Hole drilled for the purpose of finding or producing crude oil or natural gas or providing services related to the production of crude oil or natural gas. Wells are classified as oil wells, gas wells, dry holes, stratigraphic tests, or service wells. This is a standard definition of the American Petroleum Institute.

Explanatory Notes

1. Domestic production of energy includes production of crude oil and lease condensate, natural gas (wet), and coal (anthracite, bituminous, and lignite), as well as electricity output from hydroelectric and nuclear powerplants. The volumetric data were converted to approximate heat contents (Btu-values) of the various energy sources using conversion factors listed in the Units of Measure.

2. Domestic consumption of energy includes domestic demand for refined petroleum products, consumption of coal (anthracite, bituminous, and lignite) and natural gas (dry), electricity output from hydroelectric and nuclear powerplants, and imports of electric power. Approximate heat contents (Btu-values) were derived using conversion factors listed in the Units of Measure. Electricity imports were converted using the Btu-content of hydroelectric power. 1974 electricity imports were estimated on the basis of imports levels during 1973.

3. Graphic presentations of petroleum volumetric data show Bureau of Mines (BOM) figures for 1972 through October 1974 and FEA figures for October 1974 forward. FEA monthly data are based on the *Weekly Petroleum Statistics Report* which presents volumetric data on domestic petroleum receipts and imports for all refiners and bulk terminal operators, as well as production and stock levels for each major petroleum product.

Conceptually, the major difference between FEA and BOM data occurs in the "Stocks" series. Stock levels reported by FEA for the major petroleum products are higher than those reported by BOM, because the FEA series includes stocks of independent terminal operators not counted by BOM.

In the current issue, cumulative 1972 and 1973 petroleum data presented in the text are based on BOM figures. Discussions of cumulative 1974 data are based on BOM figures for the first 9 months and FEA figures for the last 3 months of the year.

4. Oil heating degree-days relate demand for distillate heating fuel to outdoor air temperature. Heating degree-days are defined as deviations of the mean daily temperature at a sampling station below a base temperature equal to 65°F by convention. Numerous studies have shown that when the outside temperature is 65°, most buildings can maintain an indoor air temperature of 70° without the use of heating fuels.

Mean daily temperature information is forwarded to the National Oceanic and Atmospheric Administration, Department of Commerce, from approximately 200 weather stations around the country. These data are used to calculate statewide heating degree-day averages based on population. The population-weighted State figures are aggregated into Petroleum Administration for Defense Districts and the national average, using a weighting scheme based on each State's consumption of distillate fuel oil per degree-day (1972 data base).

5. Domestic demand figures for natural gas liquids (NGL) as reported by BOM and reproduced in this volume do not include amounts utilized at refineries for blending purposes in the production of finished products, principly gasoline. Consumption of NGL at refineries for this purpose has remained at a fairly constant level since 1972 of around 700,000 - 850,000 barrels per day. NGL domestic demand statistics do incorporate, however, some liquefied gases produced at refineries (LRG) which are used for fuel and petrochemical feedstocks. The NGL production and stock series reported in this volume include only those liquids obtained from or held as stocks at natural gas processing plants and do not incorporate minor quantities of these liquids produced and/or held as stocks at refineries.

6. Bituminous coal and lignite consumption data reported by the Bureau of Mines are derived from information provided by the Federal Power Commission, Department of Commerce, and reports from selected manufacturing industries and retailers. Domestic consumption data in this series, therefore, approximate actual consumption. This is in contrast to domestic demand reported for petroleum products, which is a calculated value representing total disappearance from primary supplies.

7. Bituminous coal and lignite production is calculated from the number of railroad cars loaded at mines, based on the assumption that approximately 60 percent of the coal produced is transported by rail. Production data are estimated by the Bureau of Mines from Association of American Railroads reports of carloadings.

8. Mileage estimates for 1974 were derived by multiplying the monthly seismic crew counts by the average number of miles traversed per crew month in 1973.

9. The refiner acquisition cost of imported crude petroleum is the average landed cost of imported crude petroleum to the refiner and represents the amount which may be passed on to the consumer. The estimated landed cost of imported crude petroleum from selected countries does not represent the total cost of all imported crude. Imported crude costs to U.S. company-owned refineries in the Caribbean are not included in the landed cost, and costs of crude petroleum from countries which export only small amounts to the U.S. are also excluded.

10. The weighted average utility fuel cost for the total United States includes distillate fuel oil consumed by utilities whereas the regional breakdown for residual fuel oil prices represents only No. 6 fuel oil prices.

Units of Measure

Weight

1 metric ton	*contains*	1.102 short tons

Conversion Factors for Crude Oil
Average gravity

1 barrel (42 gallons)	*weighs*	0.136 metric tons (0.150 short tons)
1 metric ton	*contains*	7.33 barrels
1 short ton	*contains*	6.65 barrels

Approximate Heat Content of Various Fuels

Petroleum	
Crude oil	5.800 million Btu/barrel
Refined products, average	5.508 million Btu/barrel
Gasoline	5.248 million Btu/barrel
Jet fuel, naphtha-type	5.355 million Btu/barrel
Jet fuel, kerosine-type	5.670 million Btu/barrel
Distillate fuel oil	5.825 million Btu/barrel
Residual fuel oil	6.287 million Btu/barrel
Natural gas liquids	3.99 million Btu/barrel
Natural gas	
Wet	1,101 Btu/cubic foot
Dry	1,031 Btu/cubic foot
Coal	
Bituminous and lignite	
Production	24.05 million Btu/short ton
Consumption	23.75 million Btu/short ton
Anthracite	25.40 million Btu/short ton
Hydroelectric power	10,379 Btu/kilowatt hour
Nuclear power	10,660 Btu/kilowatt hour

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